

**Pittsburg and Antioch
East Contra Costa County
Present and Future Directions
(1972 - 1982)**

REPORT OF A STUDY ORGANIZED
AND CONDUCTED BY A
MULTIDISCIPLINARY STUDENT TEAM
AT THE UNIVERSITY OF CALIFORNIA, BERKELEY
IN THE ACADEMIC YEAR 1971-72

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PITTSBURG AND ANTIOCH

EAST CONTRA COSTA COUNTY

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I

INTRODUCTION

The present Report is the result of a study undertaken by a group of students advised by Professors Harmer E. Davis (Institute of Transportation and Traffic Engineering) and Michael A. Goodman (Department of Architecture) at the University of California at Berkeley. This group met as a seminar class for three quarters during the academic year 1971-72: details of the mechanics of the course, and comments on its multidisciplinary organization will be found in Appendix B. The names of the participating students, who are collectively responsible for the authorship of the Report, are as follows:

Michael G. Adelberg	Psychology and History	F,W,S*
Greg Corbin	Civil Engineering: Geology	F
Hita Ghotbi	Architecture	W
Alex Hammond	Civil Engineering: Transportation	F,W
Ann Hansen	Civil Engineering: Transportation	S
Harry Hasegawa	Civil Engineering	S
Charles Hoch	Civil Engineering: Transportation	F,W,S
Donald G. King	Planning, Architecture	F,W,S
Pesach Lupinsky	Architecture	F
Marvin Olson	Civil Engineering: Transportation	W,S
Jorge Del Pinal	Demography	W
Robert Roche	Civil Engineering: Transportation	W,S

*Symbols indicate the quarters (fall, winter, spring) in which the student was enrolled in the course.

Tony Sparks	Business Administration: Transportation	W,S
Neil Werner	Business Administration: Transportation	S
Mel Yoshikami	Civil Engineering: Transportation	F
Secretary: Tom Theis	Architecture	F,W,S

The course was expressly innovative and experimental. It explored the feasibility of applying a multidisciplinary approach to problems relating to the various aspects of a study area. This multidisciplinary emphasis is reflected in the central theme of this report: primarily a study of the range of problems affecting the quality of urban living. Possible solutions to these problems were studied, not merely in terms of how they fit into an overall urban improvement design, but also in terms of how such solutions are likely to affect the lives and experiences of people living in the study area. A number of assumptions which are often made in traditional studies regarding the development, expansion, and/or general streamlining of factors that affect the residents of this area, were also questioned. In searching for solutions we were directly confronted by major issues of human values.

Problems of transportation served as the core around which other investigations were centered. Before dealing with specific transportation problems a more general picture of the area's needs had to be investigated and evaluated.

In selecting the Pittsburg-Antioch Study Area, two sets of criteria were considered. (1) The study area must have reached a developmental stage (one which exhibits many of the problems associated with urban growth) which ensures that multidisciplinary recommendations have some relevance; and (2) the Study Area must warrant the application of techniques aimed at integrated analyses and coordinated recommendations rather than the traditional, less broadly conceived methods of problem solving.

II

THE CLIENTS

THE PEOPLE OF THE PITTSBURG-ANTIOCH AREA

II-A Definition of the Study Area

The study area is defined as the cities of Pittsburg and Antioch and their immediate environs in relation to the San Francisco Metropolitan Region. This definition is ambiguous but then cities are not neat orderly entities that lend themselves to easy analysis in isolation from the external factors that affect them. External forces through history have tended to shape the image of a city as perceived by residents and visitors alike.

Figure 1 shows Contra Costa County in its physical relationship to the San Francisco Bay Area. Ocean going ships travel on the rivers north of the County to Sacramento and Stockton. A major highway connection from the Bay Area to Sacramento passes through the County. Population growth in the last decade in the Bay Area was 36 percent while the growth in Contra Costa County for the same period was 47.9 percent -- the third highest growth rate of the nine counties in the Bay Area. The Association of Bay Area Governments (ABAG) predicted in their Regional Plan that Contra Costa County will maintain its high growth rate through 1990.

Figure 2 shows the cities of Pittsburg and Antioch in their relationship to the general study area. It is apparent from this map that the Diablo Range of hills effectively separates the eastern County from the remainder of the entire County. Movement from the Metropolitan Core

MOVEMENT ROUTES IN RELATION TO THE DIABLO RANGE

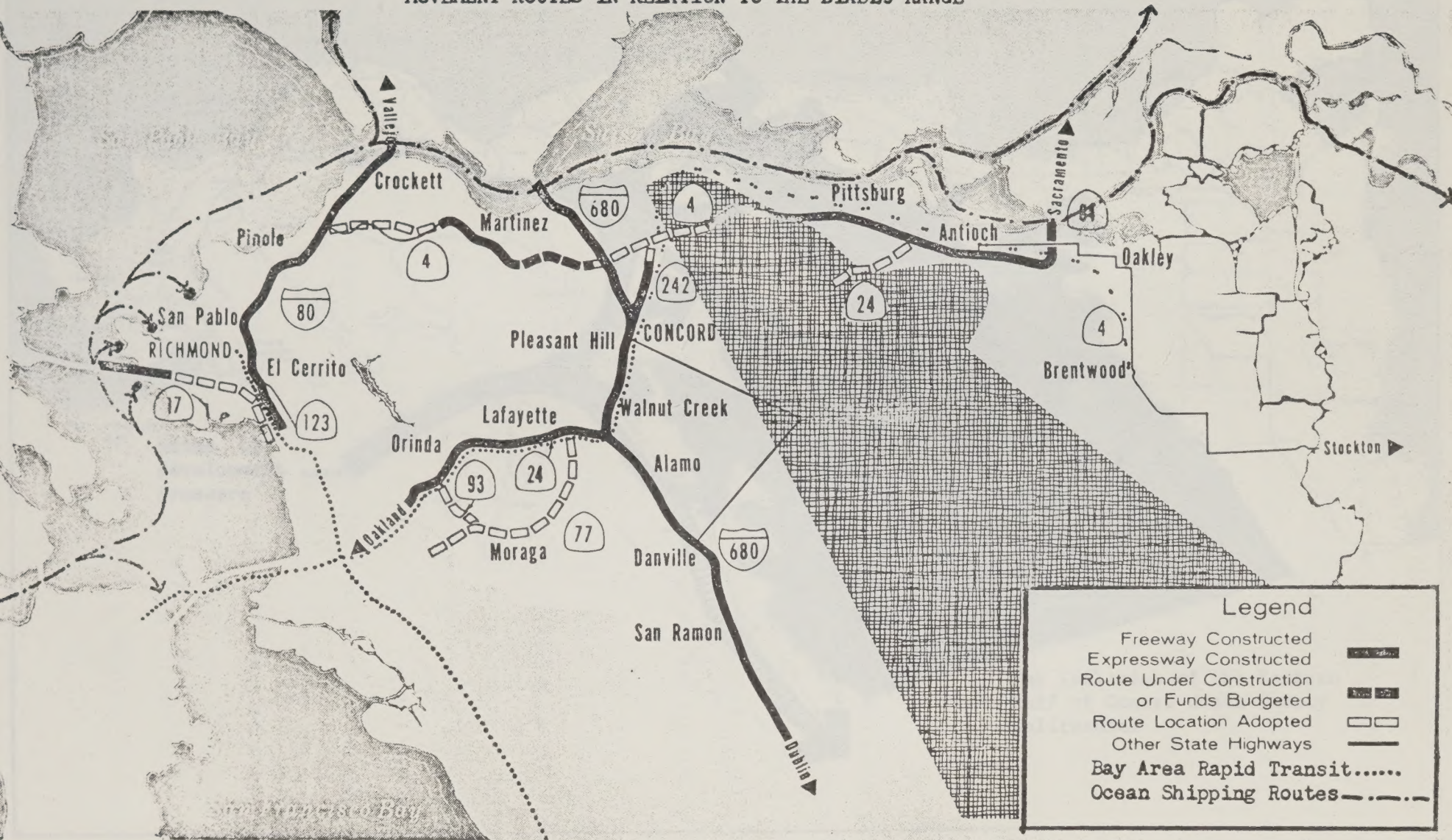


Figure 1

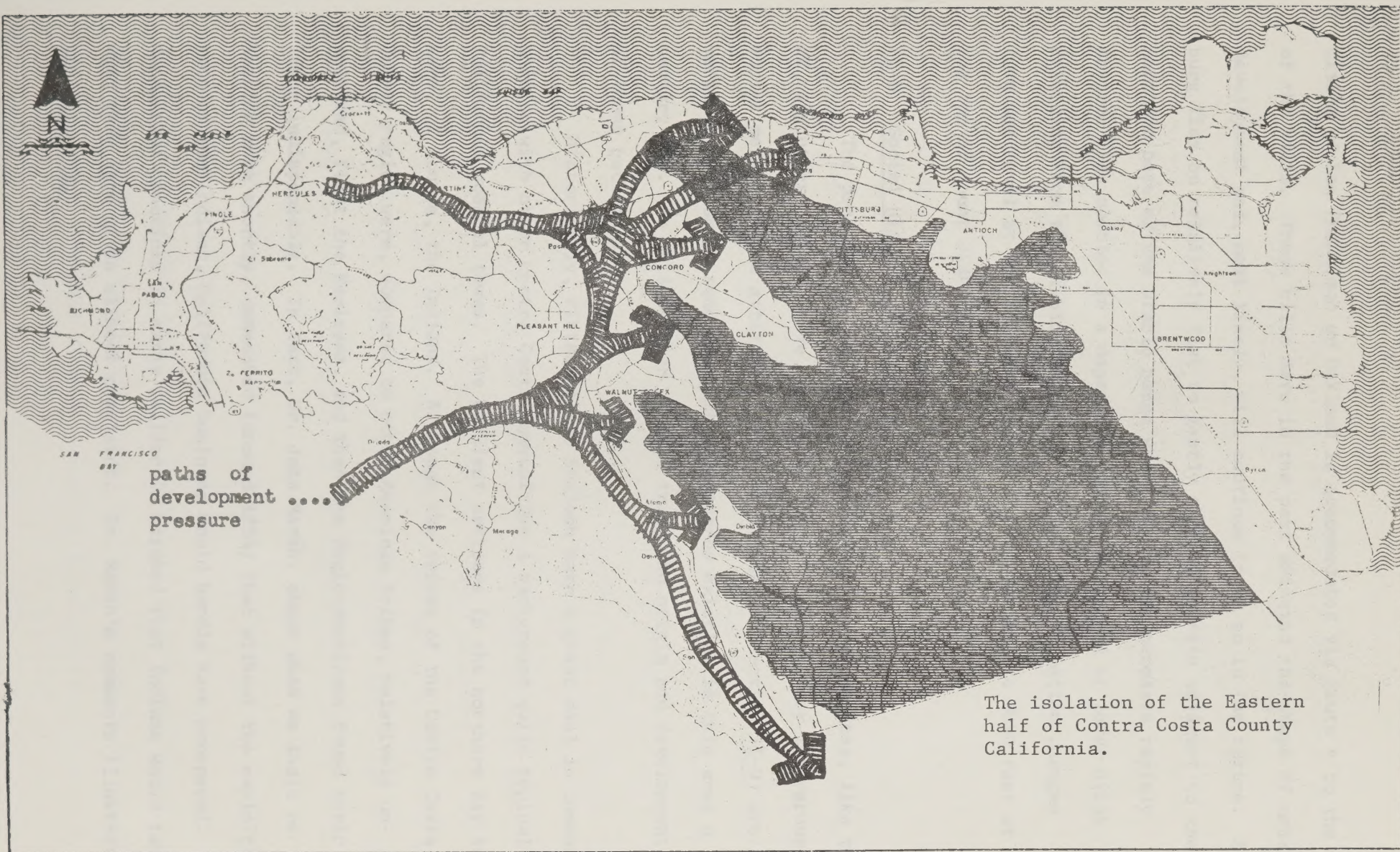


Figure 2

Cities of San Francisco or Oakland is accommodated via Route 4 to the mouth of the hills. These hills have in the past affected the shape of urban development and, most likely, will continue to do so in the future. Pittsburg lies on relatively flat to gently sloping terrain adjacent to the northern base of the Diablo range where the slope increases rapidly. Antioch lies nestled in a depression formed by a ring of lower hills extending from the Diablo Range. In general, the elevation changes from sea level at the northern limits of both cities, to 3849 feet at the top of Mount Diablo.

II-B Social History of the Area

The present-day problems of the Pittsburg-Antioch area, like those of many other regions, have historical roots. Contemporary intergroup social relations and attitudes (which we discuss in Section II-D) are remarkably similar in some respects to patterns existing in this area a century ago. In this section we will trace the origin and development of these patterns.

Historically, Pittsburg and Antioch have a great deal in common, sharing with other Contra Costa communities a background quite typical for California coastal towns. The earliest settlers in the northern Bay Area were, of course, the Indians. Although the tribes of the Contra Costa County region were, compared to other American tribes, relatively uncultured, first the Mexicans, and then the Anglo-Americans found their labor indispensable. In fact, Dr. John Marsh, about whom we shall be hearing more shortly, commented (around 1850) that without the exploitation of the Indians, California business would hardly have prospered. Managerial practices in early California assumed that Indians would take what they were given without complaint. Dr. Marsh's comments illustrate this attitude:

The mind of the wild Indian, of whatever age, appears to be a tabula rasa, on which no impression, except of a mere animal nature, has been made, and ready to receive any impression whatever. . . They submit to flagellation (whipping, lashing) with more humility than the Negroes. Nothing is more necessary for their complete subjugation but kindness in the beginning and a little well-timed severity when manifestly deserved. Should any Indian commit an offense of any kind, one has only to ask him how many lashings he thinks his transgression deserves. The Indian, with a simplicity and humility almost inconceivable, replies ten or twenty, according to his opinion of the magnitude of the offense. The white man then orders another Indian to inflict the punishment, which is received without the least sign of resentment or discontent.

One does not have to be a psychologist to recognize a very modern theme in this description. Although "kindness" and "well-timed severity" would now strike us as inappropriate in this context, it is still possible to assume a complacent and humble response from some "company unions" operating in the Pittsburg-Antioch area. As for Marsh, his penurious practices finally came home to roost: in 1856 a vaquero to whom he had denied a raise in wages betook himself to drink, vowed revenge, and murdered Marsh "most foully." Diseases and working conditions eventually killed off most of the Indians in the region, and Chinese laborers were imported to take their unenviable place.

The first private owners of the Pittsburg-Antioch area were J. A. Mesa and J. M. Garcia, who bought from the Mexican government, in 1835, a large piece of land along the north shore of San Francisco Bay; they called their rancho "Los Medanos." The great influx of immigrants touched off by the discovery of gold in 1848 began a new chapter in the history of the region.

Pittsburg

The great Gold Rush of 1849 created a land boom not the least effect of which was the founding of the two urban centers in our Study Area. In fact, hundreds of towns sprang up overnight, a great many of

them in places that provided no natural raison d'etre, but most of these soon vanished, often literally without a trace. In 1847 the "celebrated New York Volunteers" (described by a chronicler as "probably as fine a collection of thugs, yeggs, bad debtors, ne'er-do-wells, etc., etc., as ever gathered together since the days of Sir Henry Morgan") sailed around the Horn, on their way to protect the newly conquered province of Alta California (they arrived too late for the fighting). Their commander, Colonel J. D. Stevenson, a superbly uninhibited opportunist, and their accompanying physician, Dr. W. C. Parker, recognized the present site of Pittsburg as having the potential for a seaport to rival San Francisco. They acquired 10,000 acres of the Los Medanos land from Garcia and Mesa, and in 1849 founded the "City of New York of the Pacific." (A map showing subsequent changes of names and locations of the city appears at the end of this section.) The area was surveyed by Tecumseh Sherman (of Civil War fame), and Stevenson began recruiting settlers. Indisputable were his claims of a splendid setting, beautifully laid out, with a natural harbor accessible to the largest sailing ships. One observer noted, however, that the would-be town, like so many others, had no real reason for being there, and predicted on that account an early demise. In fact, Pittsburg was to undergo eclipse and rebirth five times during the next century -- each time because it had acquired, or outlasted, an identifiable "natural" function.

The new town was actively in competition for settlers. A story is told about a group of sailors from Antioch who spent one memorable night in New York of the Pacific. Their response to Stevenson's hucksterish panacea-mongering illustrates the conditions then prevailing in the embryonic village.

To induce the company to settle there, offers of city lots were freely made and other favors promised. Some of the company took an opportunity to look at its beauties, but were not much impressed thereby. Having occasion to pass by on their way to this city Antioch, in some whale boats, they encamped one night in the neighborhood; and they met with mosquitos of such terrible size and ferocity, that it was a miracle they escaped alive in the morning. It is a sober fact that they fought the mosquitos during the whole night, and were at last obliged to retreat. After this, whenever "New York of the Pacific" was mentioned in their presence, a ghastly smile would overspread their countenances, and they would beg to be excused from hearing its advantages enlarged upon.

Such were the foundations of the earliest relations between Pittsburg and Antioch. Later on when families had relatives settled in both towns, friendly intercourse (Sunday rowboat rides up and down the river, etc.) was much increased.

The first building to be constructed in New York of the Pacific was New York House, a lodging establishment. The second housed a trader who served as postmaster and judge. The third was a saloon run by one Henry F. Toye, of whom the annals record only that he "lived with an Indian squaw, by whom he had a child, but finding these encumbrances too much, he exchanged the boy for a horse and the woman for a Newfoundland dog." The town served as a convenient stopping-off place for passing sailing ships; but already by around 1850 the advent of the ocean-going steamboat doomed the settlement to its first period of decline. In an attempt to revive the place Stevenson joined the general bidding to have the Capitol relocated on his land, but he could not compete with offers tendered by Vallejo. By 1858 the "downtown area" (a dozen or two buildings) was reduced to a generally dilapidated state by pillaging and natural decay.

A short-lived renaissance began in 1862 with the discovery of low-grade lignite coal six miles south of the town. A wharf and a shipping terminal were built; and the post office took on the name "Black

Diamond." But by 1885 the colliery could no longer turn a profit, and was therefore abandoned. During the remainder of the century, the town relied mainly on fishing and canneries for its economic support. Ownership of the land meanwhile (1871) passed from a San Francisco banking firm to L. L. Robinson. Title then passed via Robinson's sister to an entrepreneur, C. A. Hooper (1900), under whose tutelage the town underwent a remarkable program of industrialization. Hooper was banking on certain advantages the site appeared to have over San Francisco: a shorter railroad haul, a more sheltered port and, perhaps most significantly, "probably a better wage condition" for prospective employers. This last aspect was crucial. It promised a job market which guaranteed prospective employers that they would have their own way in the event of a dispute. Industries were quick to take advantage of this situation. The Redwood Manufacturer's Association, Columbia Steel, and the Great Western Electro-Chemical Co. (then the only plant of its kind west of Detroit) were soon located in the town. By 1917 a newspaper had been acquired, and in 1920 a major municipal bond issue was passed, which provided for a city hall, library, wharf, sewer system, fire-fighting apparatus, street-cleaning equipment, etc. By 1920 we find the following companies, in addition to the above-named firms, operating in Pittsburgh:

Pioneer Rubber Works ("largest west of Chicago")
 Lanteri Shipbuilding
 National Chemical Co.
 Booth's Cannery ("largest on the coast")

At this time plant managers of most of these firms lived in Pittsburgh and took an active interest in community affairs. By the 1960s, when industries in the Pittsburgh area had trebled in number, not a single plant manager resided within the city limits, nor did the company owners.

The town rode the boom of the twenties like any other industrial community, and even seems to have managed fairly well (at least, from the business point of view) during the depression. Writing in 1933, a historian of Pittsburg concluded that the town "can look forward to ever-increased prosperity, growth, and importance in the years to come."

During that time, however, there occurred an event which laid the foundations for the city's modern predicament. In 1933 Columbia Steel was bought out by US Steel, which soon undertook a program of expansion and hired sizable numbers of Mexican-Americans settling in Pittsburg. This effectively made Pittsburg one of the two cities in the county where colored minorities could settle, a fact which was soon to acquire major significance. In 1940 the Federal Government established Camp Stoneman south of Pittsburg, which was to serve as a major port of embarkation for the war in the Pacific. The population of Pittsburg, which had grown from some 7500 in 1925 to 20,000 in 1940, was now inundated by as many as 45,000 servicemen and their families, as well as families of many newcomers employed either in the Camp or in the war-industries which sprang up. The impact of the development on Pittsburg has been summarized in these terms:

To complicate matters, we were subjected to a terrific, artificial prosperity during World War II, with Camp Stoneman, a large military installation, pouring millions of dollars into our economy. Many businessmen and property owners made enough money in the forties to retire and they have little incentive to make their property attractive to tenants, or to improve the older neighborhoods, where they used to live and work, but from which they moved long ago.

Generally speaking, a pattern was established whereby the influx of poorer minority citizens was accompanied by proportional emigration of the higher-income, better-educated, upper and middle class Whites. This tendency was repeated in the early 1950s when Camp Stoneman shut down, and again, the only community in the area which would admit minorities was Pittsburg.

These trends, and the effective absence of tax base within the city limits are the basis of the present social situation, which we take up in the succeeding sections.

Antioch

By contrast with the checkered history we have recounted for the city of Pittsburg, the development of Antioch from its similarly humble origin to its present-day status, while not without colorful episodes, seems on the whole to have been more smoothly continuous, and considerably less pretentious. In 1837, Dr. John Marsh chose to acquire a piece of the Los Medanos estate, and settled in an utterly isolated spot in the vicinity of modern Brentwood. (His reasons were not divulged.) Marsh's claim to being the first White settler in Contra Costa County is undisputed, and he remained there throughout the remainder of his eventful, and tragic life.

In 1849 the twin brothers J. H. and W. W. Smith arrived in the Bay Area after a perilous voyage around Cape Horn, and were hired by Colonel Stevenson to construct New York House in order to initiate the development of New York of the Pacific. Hearing of the arrival of newcomers, Dr. Marsh came to investigate. Apparently he was pleased with what he found: providing free transportation and ignoring the inconvenient fact that his own titular claim to the land was under dispute (it took decades to straighten out the conflicts), he invited the brothers to stake out parcels of land for themselves in the eastern part of the rancho. This they did: on July 19, 1849, J. H. Smith settled on the site of present-day Antioch. The coastal area of their claim was renamed "Smith's Landing" and they began casting their nets in search of neighbors. The Smiths found what they were looking for when a party headed by Captain G. W. Kimball arrived in the area. Since one Smith soon died, and the other Smith left

town soon after, Kimball rates as Antioch's first permanent resident. After a brief career as a faith-healer, Kimball had assembled a party of adventurers in 1849, and contracted to settle in California. They constructed a boat, and affixed their signatures to the following:

We, the undersigned, are desirous of engaging in an enterprise on the golden shores of California, the paradise of America, where summer reigns perpetually, while the fertile soil is yielding its increase abundantly, fruit growing spontaneously, fishes sporting most plentifully, and where wild game is prolific, on the shores of the Pacific. Our object is to settle a township . . .

In 1851 W. W. Smith invited his new neighbors to a picnic, at which the question was posed, "What shall we call our new town?" All agreed that the place should have a Biblical name. One enthusiastic citizen proposed the name "Paradise"; but the humor of the crackerbarrel asserted itself, and this was objected to on the grounds that if they ever had to give up their claim to the area (a by no means unlikely eventuality), the name would have to be changed to "Paradise Lost." Just how the name "Antioch" came to be settled on, the archives lamentably do not reveal.

Economic development and prosperity continued in the community uninterrupted for many years. The principal means of support in the earliest years was derived from harvesting wild hay growing on the islands and land north of the town, to be sold in San Francisco. (Unlike Pittsburg, Antioch was conceived as an agricultural community.) A brick factory was established by 1852; in 1859 coal was discovered in the township, and although the vein proved to be narrow and difficult to mine, a railway was built to the waterfront (1877). (An unsubstantiated claim is on record that the mine produced \$20,000,000 worth of coal from 1860-1902.) In 1863 a copper mine was opened, and although a smelter was built, this too proved to be short-lived. Also, in 1863 a ferry service was established to the western Bay Area, to be superseded ten years later when the river

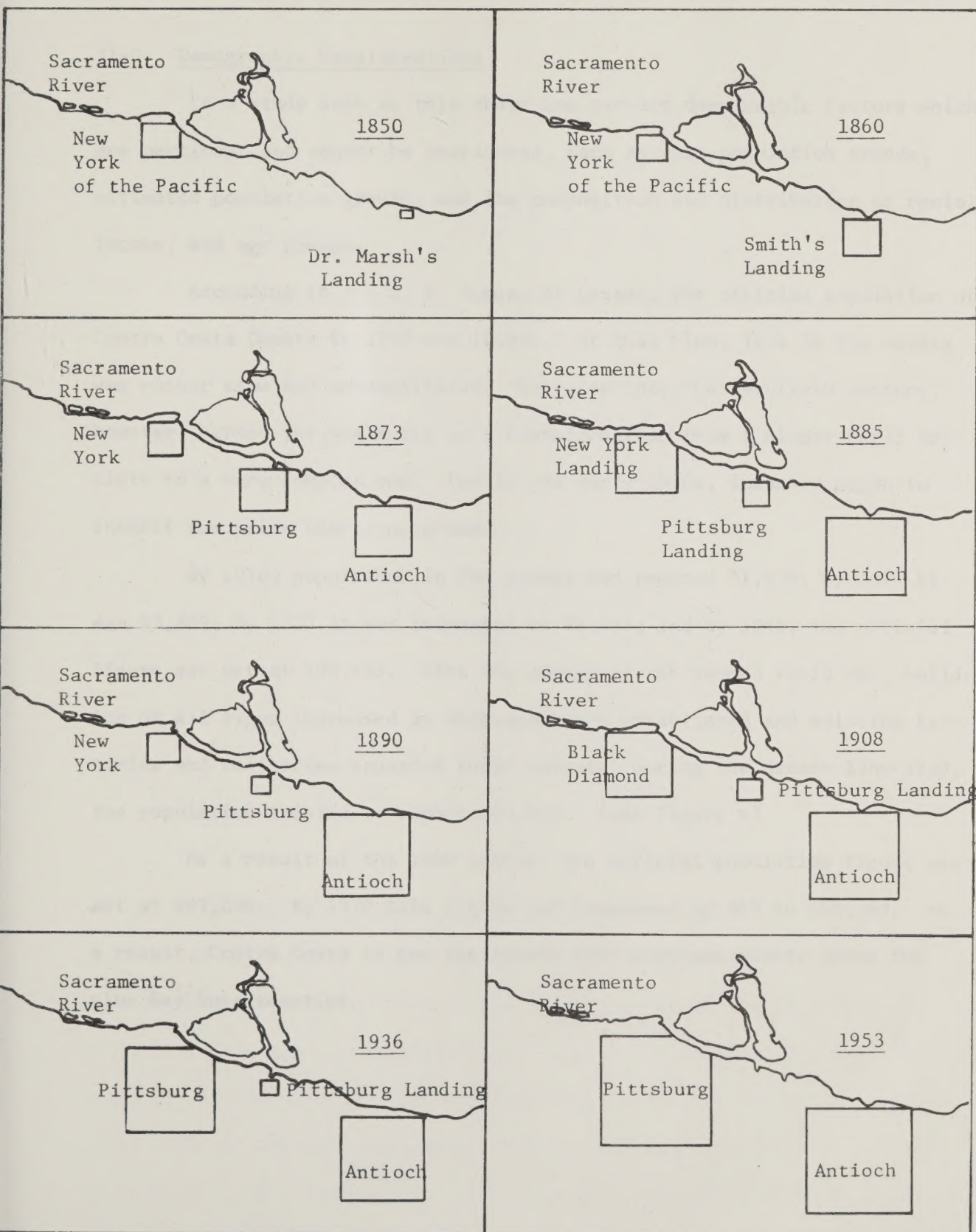
boats headed for Stockton began making regular stops at Antioch. In 1864 a lumberyard was opened and in 1868 the "Albion" pottery works went into operation, followed the next year by a distillery. A newspaper was available in time to report the serious fire which broke out in 1871, doing \$18,000 damage to ten buildings, but this proved only a momentary setback to the resilient Antiochites. By the next year Antioch had petitioned for incorporation as a city in Contra Costa County (centennial celebrations were held in May, 1972). The town's Board of Trustees met by invitation in the living room of the Hard Building, and, as the first order of business, elected as the first mayor Roswell Butler Hard. In 1874 the town acquired a fire department, and in 1875 a factory was built to turn the local tules into mattress stuffing. In 1878 the same plentiful weed was being used to produce covers for bottles manufactured in San Francisco. A railroad connection became available in that year when the Central Pacific RR made a passenger and freight connection to the town. In 1891 the Bank of Antioch was founded. By 1893 a private school for children had been opened, and in 1899 the first of several generations of paper mills was in operation. 1903 saw a bond issue passed to pay for a sewer system, and from 1914-17 some 101 blocks of city streets were paved. (In 1902 an audacious resident had astonished the town and won himself a bet by walking from the foot of L Street to the Arlington Hotel, some 4-1/2 blocks away. The rutted condition of the muddy streets in that area had convinced the townspeople that such a feat transcended mortal capabilities. As recently as 15 years ago substantial areas of the town east of A Street were in the very same condition.)

Antioch's growth in subsequent years remained slow but continuous. The population grew from 2500 in 1925 (just a third of contemporary Pittsburg) to about 5500 in 1940. The town benefitted only indirectly from the

establishment of Camp Stoneman a few miles away, in that after the war men who had been stationed there returned to the area with their families. The economically better-off Whites settled in Antioch and in the towns further east, while racial barriers apparently prevented Blacks, who generally settled in Pittsburg or West Pittsburg, from doing the same. At the same time, many Whites left Pittsburg and some of those settled in Antioch. This process repeated itself when Camp Stoneman closed down in the early 1950s. About that time, a substantial new group of industries set up plants around the periphery of Antioch, taking advantage of the skilled labor market, the access to water and to the growing Bay Area market, and especially the privileged tax status prevailing in the unincorporated areas outside the city limits. Fibreboard had established a pulp mill around 1949 (the plant is being phased out in 1972, but a new one has been built on the other side of town). DuPont had set up a \$40-50,000,000 plant by 1955, while PG&E was investing nearly \$90,000,000 in two steam plants located nearby in the early 1950s. Stable soils of the Oakley sand area made possible the establishment of a major Kaiser Gypsum plant (about \$20,000,000) in the early 1960s (after an expensive mistake building on softer foundation conditions near Pittsburg). Antioch's population growth rate also increased when in 1965 Port Chicago was shut down. Again, pensioned employees who could afford it tended to move to Antioch and areas further east.

It was also during the mid-1960s that the population overflow from the central Bay Area, which had begun to fill the San Ramon Valley a decade earlier, now started to spill into the eastern part of Contra Costa County beyond the Diablo Range. This process was facilitated by improvements in State Route 4, which connects the area to Richmond and the East Bay. With these developments Antioch began to lose some of its isolated

Fig. 3 - Names and Locations of Pittsburg and Antioch as They Appear on Various Maps, 1850-1953



character, and further pressure of this type may draw it more fully into the greater San Francisco metropolitan area.

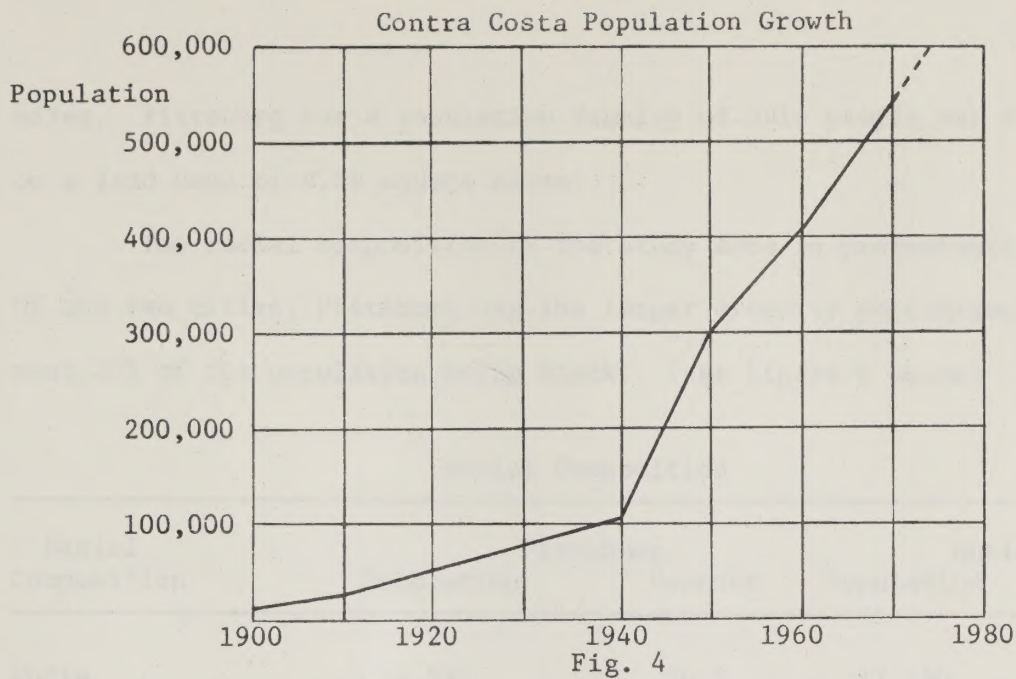
II-C Demographic Considerations

In a study such as this there are certain demographic factors which are pertinent and cannot be overlooked, such as past population trends, estimated population growth, and the composition and distribution of racial, income, and age groups.

According to the U. S. Bureau of Census, the official population of Contra Costa County in 1900 was 18,046. At that time, life in the county was rather slow and uncomplicated. Entrance into the twentieth century, however, marked the beginning of a transformation from a simple rural society to a more complex one. For in the early 1900s, industry began to inhabit the prime shoreline areas.

By 1910, population in the county had reached 31,674; by 1920 it was 53,889; by 1930 it had increased to 78,608; and by 1940, the official figure was set at 100,450. With the advent of the Second World War, building of all types increased as shipyards were established and existing factories and refineries expanded their output. During the decade 1940-1950, the population tripled to almost 300,000. (see Figure 4)

As a result of the 1960 census, the official population figure was set at 409,030. By 1970 this figure had increased by 36% to 558,389. As a result, Contra Costa is now the fourth most populous county among the nine Bay Area counties.



Population in Pittsburg and Antioch grew in contrasting proportions during the last census period (1960-1970). Pittsburg grew at a very minimal rate of 8%; while Antioch increased at a rate of 48% -- 12% higher than that of the county growth rate. (see Figure 5)

1960-1970 Population Growth			
	1960	1970	Rate
Pittsburg	19,062	20,651	8.0%
Antioch	17,305	28,060	48.34%
County	409,030	558,389	36.0%

Figure 5

These figures suggest two things. First, Antioch has had significant in-migration. Second, and conversely, Pittsburg has experienced some out-migration. (The nation grew over the same period at a rate of about 17%.) In addition, these figures suggest a doubling period of 14 years for Antioch and 86 years for Pittsburg, providing the observed growth rates were to continue unchanged. In terms of population density, Antioch has a density of 4,110 persons per square mile, over an area of 7.86 square

miles. Pittsburg has a population density of 2410 people per square mile on a land base of 8.58 square miles.

The racial composition of the study area is predominately White. Of the two cities, Pittsburg has the larger minority population with almost 25% of the population being Black. (see Figure 6 below)

Racial Composition

Racial Composition	Pittsburg		Antioch	
	Population	Percent	Population	Percent
White	14,990	76.2	27,530	98.0
Black	4,537	22.0	42	0.15
Oriental	901	4.4	360	1.3
Other	<u>223</u>	<u>1.1</u>	<u>128</u>	<u>0.6</u>
Total				
Minorities	5,661	27.4	530	1.9

Figure 6

The Chicano population in these studies is counted in the white population. A later analysis of the 1970 census will include a category of the Spanish surname and Mexican-origin segment of the population.

According to welfare data as of 1970, the number of people in the Pittsburg-Antioch study area who received assistance in the year 1970 totalled 11,260. This figure represents a recipient rate of 23% of the total population.

Within the study area, the average age of the population is just over 26 years.

Age of Population

	Pittsburg	Antioch
Median Age	26.2 years	26.1 years
Males	25.7	25.9
Females	26.7	26.2

Figure 7

Also noteworthy is the fact that the population over sixty-five years of age is more than 10% of the total. The over sixty-five population for Pittsburg is 2,198, representing 10.6% of the city's population. Similarly, the elderly population of Antioch numbers 1,789 which is 6.4% of the city total. Pittsburg's percentage of over sixty-five population is above the national percentage whereas Antioch's is just about the national average. The Pittsburg-Antioch combined area has 20% of all households headed by a person 65 years of age or older. In contrast, the whole eastern part of Contra Costa County has a figure of 16% with a head of the household 65 years or older.

Population increases seem inevitable. This is especially so when one realizes that property values are less than in other areas of Bay region and that developable space is available. Another consideration is the possible extension of the BART line to the Pittsburg-Antioch area. This factor will be more fully explored in Section G which investigates transportation needs in the study area and in Appendix A which deals with the feasibility of extending BART to Pittsburg and Antioch.

II-D Social Factors

We have reviewed the social histories of Pittsburg and Antioch, and an abstract outline of the area's racial characteristics was presented in

the preceding section. We will now focus more closely on some social features of the two cities, as they are reflected in the attitudes and opinions we have heard expressed by area residents during the course of our research. In the absence of up-to-date studies of a more elaborate kind, we are forced to rely on hearsay and observations of some of our group. Thus, we have no statistical evidence for the prevalence of the following opinions, and can offer only an impression of certain social circumstances which seem noteworthy and relevant to our present effort.

Although registered Democrats outnumber Republicans 2-1 in the area, the general political atmosphere is conservative. People who have jobs are very much dependent on them. We have found no evidence of radical sentiment in either community.

As elsewhere in the country, the prevalence of a conservative attitude is not necessarily an indication of general contentment. Adults in both communities here expressed concern over the widespread use of drugs by young people, and usually attributed this to boredom. "Youth has nowhere to go and nothing to do. If better recreation facilities were available, this sort of thing wouldn't happen." Sociological studies made elsewhere suggest that boredom is only one of several factors which could tend to promote drug usage. Whatever its specific causes in Pittsburgh and Antioch, the consensus seems to be that the level of drug traffic is high, although not necessarily higher than in other urban communities.

There are notable differences in the pattern of race relations in the two cities. In Pittsburgh the ethnic minorities are in the majority and the poor are densely concentrated in a few neighborhoods. There is alleged job discrimination against these minorities which is pointed to as a source of resentment, while in Antioch the circumstances are quite different. (There have been riots -- in the El Pueblo area, for example --

in recent years, but these do not seem to have been promoted by radical ethnic groups. Indeed, we could find no indication that such groups exist in Pittsburg at all.) The minority population of Antioch is very small, and this may help to explain the apparent absence of racial tensions in that city. The Spanish-surname population has been estimated at around ten percent, and only a handful of Blacks live within the city. Inter-marriage between Spanish-surname and Anglo-American families is not uncommon in Antioch, so that a Spanish surname does not necessarily indicate an ethnic distinction. Further to the east (toward Oakley and Brentwood) there is a substantial population of Mexican-Americans, many of whom are employed tending the row crops (lettuce, etc.) which have tended to replace orchards in the last few years. We are told that the Spanish-speaking ethnic minority is not adequately represented in Antioch city politics, but we have no indication that this has been taken up as a grievance.

Representatives of some of the world's largest and wealthiest industries are situated in the Pittsburg-Antioch area. The towns are surrounded by these factories, and the relationship is not necessarily a healthy one. Outdoor recreational activities in Antioch are an exception to this pattern of dependence. Because most are located outside the city limits, these industries do not contribute to the local tax base (except for the special school tax district), a circumstance we will address ourselves to in subsequent sections. Unlike the situation which pertained there in earlier decades, the management of these corporations seems to feel little responsibility toward the well being of the local communities. In comparable situations elsewhere corporations have built recreational facilities, instituted educational and job-training programs, established scholarships, etc. (as they are now

urged to do by the U.S. Chamber of Commerce), and in this way have attempted to meet some of the responsibility which goes along with their influence and power. Such programs are notably lacking around Pittsburg and Antioch. The economic dependence of the local residents on these corporations may tend to leave them powerless to complain. We surmise that these unequal relationships constitute a potential irritant in the social life of the communities.

Pittsburg

In addition to these general features which pertain to both towns, Pittsburg has some particular problems worthy of mention. While we are not in a position to assess the effects of any one of these situations on Pittsburg society, they clearly represent potential sources of irritation, aggravation, and malaise.

(1) Our research suggests that many Blacks feel that they are not represented on the city council. They feel that a few powerful families openly dominate city politics.

(2) The decrepit condition of much of the city's housing and the central business district may exert a depressing effect on local residents. The general poverty which underlies this condition is itself a source of social ills. Studies elsewhere indicate that residents of poor communities tend to form few intimate relationships, and the consequent isolation and loneliness is known to be correlated with poor mental health. There is no doubt that these processes occur in Pittsburg as in other depressed areas.

(3) New subsidized housing projects in the city have been planned by outsiders without prior consultation with the people who will have to live in them. Moreover, the rules which regulate who is eligible to rent apartments in the developments tend to insure that the community will remain

poor and not raise itself to more prosperous and stable circumstances. Families tend to move out as soon as their income rises over a certain level. Thus the needs of Pittsburg's own population are not served as well as they might be, despite the appreciable outlay of Federal funds.

Despite potentially depressing circumstances such as these, there is evidence of an optimistic and enthusiastic community spirit in the town's present financial commitment to an extensive renewal-rehabilitation program. In subsequent sections we return to the question of community spirit, and suggest programs which can make effective use of it for the benefit and welfare of the town.

Antioch

Many residents feel that Antioch's long-term isolation is the town's single most salient social feature. After the first World War a proposed major transcontinental highway was to cross the Antioch bridge. But the plans were abandoned and the town remained effectively isolated, both from the Bay Area on the west and from the major valley cities to the east, for most of this century. The result of this isolation has been the survival of a genuine sense of community in Antioch, such as one might expect to find in an old European town, but which rarely exists in American cities. Many families have been associated with the town for several generations; they know each other, are known by everybody, and identify their interests with those of the community as a whole. Since the end of the second World War three successive waves of immigration have had the effect of diluting the proportion of long-time residents in the area. Many people feel that as this process continues the town's self-centered character will be lost forever. As more "outsiders" from the Bay Area spill over into eastern Contra Costa County

and are accomodated there in new housing developments, this potential fate becomes a certainty.

Implications for the Present Study

On the basis of findings detailed in subsequent sections of this Report, recommendations will be made which suggest that the interests of both Pittsburg and Antioch residents would be better served if some facilities and services in the area were centrally planned and cooperatively administered. The governments of both cities have tended to avoid such collaboration in the past, and some residents seem wary and suspicious of programs administered at the regional level. We have encountered in Pittsburg the feeling that the city has been studied to death, but that all previous efforts have contributed very little to the city's welfare. Outside professionals not in touch with grass-roots needs are seen as more of a threat than a blessing. In Antioch the feeling seems to be that the loss of local control implicit in regionally administered programs outweighs any prospective economic benefits such programs might offer. Considering the historical, demographic, and social bases of their present situations, we can see that such feelings are not without foundation. Differences between Pittsburg and Antioch are as prominent as their similarities. This will be kept in mind when we come to the recommendations in subsequent sections. Community involvement in planning and implementation of programs will be stressed; so will local control, whenever this is consistent with effective use of resources. Areas in which the communities would gain by combining or coordinating their efforts will be pointed out, and programs suggested in which local effectiveness will be enhanced.

III

THE PITTSBURG-ANTIOCH AREA:

EVALUATION AND RECOMMENDATIONS

III-A Governmental Structures

1. Regional

The Association of Bay Area Governments, ABAG, is a voluntary council of governments composed of 92 cities in all of the nine Bay Area counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. It is the area-wide comprehensive planning agency for this area. In its approved Regional Plan 1970 - 1990, it provides a policy framework for planning and governmental cooperation in the following fields:

airport systems	new communities
economic base analysis	ocean coastline
housing and social concerns	parks and recreation
information support center	population growth
land use	water resources

ABAG is also concerned with federal assistance programs. In this capacity it is a federally designated metropolitan clearing house for the Bay Area in terms of review and comment for local applications.

Another ABAG concern is that of obtaining citizens' views on various projects and issues. To this extent it is establishing a formal Regional Citizens Forum that will ensure that individual citizens' views as well as those of citizens' groups are included in all phases of ABAG's planning and information gathering programs.

ABAG policy is set by the General Assembly which meets at least twice a year. It consists of delegates from member cities and counties -- each with one vote, with a majority of both city and county votes required for action.

Finally, ABAG has an executive committee which meets once a month to make operating decisions, appoint committees, and recommend general policies to the General Assembly. Membership reflects county population size and is responsible for directing the work of ABAG's staff.

The history and development of regional government within the San Francisco Bay Area can be traced back to around 1910 when the "Greater San Francisco" movement was in vogue. This was an attempt to draw the San Francisco peninsula into a New York type borough system. This was a logical extension as San Francisco was considered the business and financial center of Northern California. It was not until 1961, however, when ABAG was formulated, that this latest concept of regional government again came into vogue and then was actually established.

There are also other lesser attempts at regional administration -- some of which predated ABAG. Those in existence, however, were seriously limited in scope and substance.

The Bay Area Council is one example with a different view of the region. BAC is a private, non-profit and voluntary organization concerned with economic, civic, and environmental development of the nine county Bay Region. Its main difference from ABAG is that it receives its primary support from business with help from government, labor, education and civic interests. In a sense, it is a "super" Chamber of Commerce operating on a regional level in an attempt to coordinate efforts of top level participation. Top level participation, in this usage, is the Board of Trustees which is made up of corporate senior executives of the Bay Area. It is

these men who formulate policy and, in a way, articulate the point of view of business in important regional issues.

The Regional Water Quality Control Board is the first of two regional environmental enforcement agencies for the Bay Area. It came into existence in 1949 by act of the state legislature as the Water Pollution Control Board, as one of nine statewide regions. The present name was adopted in 1967. Although the change in name implied more power, it wasn't until the Porter-Cologne Water Control Act was adopted and put in effect (January 1970) that the Board had any real enforcement powers.

At present, the Water Quality Control Board "controls, protects, and enhances" any discharge of waste water into state of California controlled waters. The regulatory powers of the board are on a case by case basis, which allows action to be taken against a specific area but does not necessarily apply to the whole region. In addition, their control supersedes that of any specific water sewage districts. By way of enforcement, the Board's main tool is the cease and desist order directed against a violator which, especially, prohibits any additional connections or expansions.

Violators who have been issued a cease and desist order and don't comply will have their case turned over to the State Attorney General and if prosecuted and found guilty may be fined a maximum of \$6000 for every day that compliance is not met. Jurisdiction which includes both city and industry is limited, however, to discharge or intended discharge into State waters. This includes land disposal which often precipitates leaching (into State waters).

Interestingly enough, standards and requirements for different regions are not uniform. Pittsburg, for example, is in the Bay Region district and has more stringent pollution standards than Antioch, which

is in the Central Valley District. The difference in districts is due to water flow patterns: Antioch is located on the San Joaquin River, while Pittsburg is on Suisun Bay. For this reason, the Bay Area Board's activity is primarily directed toward the city of Pittsburg.

At present, Pittsburg is under a cease and desist order for its municipal sewage treatment plants: Stoneman plant for disinfection and the city plant for sedible solids. In terms of the proposed marina in Pittsburg, the Board intends: 1) to regulate the discharge of vessel waste and require the city to furnish suitable berth and pumping facilities; 2) to ask the State Water Quality Control Board for more rigid laws; and 3) to urge the Board to press for more stringent federal laws especially pertaining to international vessels.

The second Bay Area environmental enforcement agency is the Bay Area Air Pollution Control District. It was organized in 1955 by act of the State Legislature, which initially had control over only six of the nine Bay Area counties. In 1971, the District was expanded to include the three North Bay Counties -- Napa, Solano, and Sonoma.

The agencies' responsibilities and enforcement power are the same as the Regional Water Quality Control Board, but in this case only with respect to the air. The main enforcement tool of the agency is called an abatement order. In enforcement, the Air Pollution Control Board is divided into two branches: an enforcement branch where field inspecting and enforcing is done, and a technological branch, where supportive evidence for abatement (and prosecution, if necessary) is gathered and tested.

One serious limitation faced by this Board is that their jurisdiction is confined to stationary sources of pollution (factories and refineries) and to rail and sea transportation. Motor vehicles, a prime source of air pollution, are controlled solely by the State while aircraft are monitored by the Federal government.

The Metropolitan Transportation Commission (MTC) was created by the California Legislature in 1970 to provide comprehensive transportation planning for the Bay Area Region. MTC will establish a Regional Transportation Plan with concerns for environmental protection, including air and noise pollution, land-use planning, population density and open space, financial limitations, and new transport technology.

MTC is working in cooperation with existing public agencies in regard to transportation planning. The citizens of the Bay Area will be involved in establishing the Regional Transportation Plan through a Citizen Participation Program. Their ideas and needs will be assimilated and analyzed by the commission as it seeks to establish the Regional Plan. Prior to the adaptation of a Regional Transportation Plan the commission will also study the reports and recommendations of its predecessors, the Bay Area Transportation Study Commission and the Regional Transportation Planning Committee. By June 1, 1973, the Commission plans to have prepared and adopted a Regional Transportation Plan. The Plan will require MTC:

1. to define the major issues involved in the development of the transport plan;
2. to establish policies dealing with these issues;
3. to project a regional transportation system for the year 2000 that will include a highway and bridge element, a mass transit element, and a study of the role of harbors, seaports and airports in the Bay Area;
4. to establish a financial plan showing the source and amount of revenue needed for each element of the regional transportation system;
5. to develop a ten-year improvement program showing transportation program expenditures contemplated between 1973 and 1983 and a schedule of multi-mode improvement priorities;
6. to describe how MTC expects to administer and maintain the plan following its adoption.

At present, the MTC staff is coordinating the studies being carried out in individual planning projects. The information from these studies will provide input for the regional plan. Eleven studies are currently in

progress: the Golden Gate Bridge District, Oakland Airport Transit, BARTD Extension to Pittsburg, BARTD Extension to Livermore, Rapid-Transit-NW San Francisco, Rapid Transit San Mateo County, Transit Planning Santa Clara County, AC Transit-BARTD Coordination, SF Muni-BARTD Coordination, Santa Rosa Transit Service, and the Vallejo Transit Service.

Following the adoption of the Regional Plan, the Commission must review and approve all regional application for transportation grants to the federal or state governments before these governments review the applications. Construction or major modification of any transbay bridge in the region will require approval of the Commission with the exception of new bridges where, after 1965 but prior to adoption of the Regional Transportation Plan, the Legislature provided funds for them to be established. State highways within the region shall conform to the Plan, but the California Highway Commission may deviate from the Plan if there is overriding statewide interest for it to do so.

The Commission will assist a number of federal, state, and local entities who are concerned with transportation with the overall development of the regional transportation system. After July, 1972, MTC will approve claims from the new gasoline sales tax in the nine Bay Area counties for the improvement of public transportation.

2. Local Governmental Services

"Local governmental services" in this section refers basically to those services which are public, such as police, fire, health, etc.

Discussion of the following services will consist of three elements:

- 1) Description of existing services; 2) Delineation of problems; 3) Recommendations attempting to solve these problems.

City Government

The primary governing bodies in Pittsburg and Antioch are their respective city governments. Both cities are General Law Cities and therefore utilize the Council-Manager form of government. This provides for a five-man city council with an appointed city manager. The council members are elected from the general population of each of the cities. The councils are responsible for decision making, policy making, etc. With the stipulation that their actions do not conflict with regulations set by the State, the councils control all aspects of the functioning of the cities, such as annexations, creation of offices, and decision making. The function of the city manager is to execute the decisions and actions made by the city council.

Although these entities have functioned fairly well with respect to each of their cities, there appears to be a lack of cooperation between the two in several important areas, which will be discussed in the following sections.

In general, there have been several occasions where a joint venture between Pittsburg and Antioch would have been economical and practical. Yet even if these entities realize the economic advantages of cooperation on municipal projects, the traditional political rivalry between the two negates any efforts for combined services. The political view of local or city control is the overriding incentive. One example of this situation is that of fire-fighting facilities.

Fire Facilities

The Local Agency Formation Commission of Contra Costa County furnished the details of the following discussion. For the purpose of fire districts the Antioch-Pittsburg area may be defined as the areas of the two cities, and County Service Area F-3 and County Service Area F-4.

The City of Pittsburg presently has two operating firehouses, and if the present pattern of development and annexation continues, the city will build two more. The City of Antioch also has two firehouses, and will probably build three more for a possible grand total of nine in the study area.

Only in the developed area to the west of the study area has firehouse master planning been accomplished. To the west of the city of Pittsburg, the Contra Costa County fire master plan indicates the future construction of a second firehouse. On the other hand, master planning of the study area will affect firehouse locations in the consolidated district.

There are presently a total of four firehouses manned by 55 full-time and 30 volunteer fire fighting personnel in the two city fire departments. These two departments have different pay scales, employee benefits, work hours, fire classes, service levels, and fire tax rates.

When the city fire protection costs are segregated out of the city budgets, the city of Antioch has a high gross fire tax rate of approximately \$1.00. The return from the fire contract with County Service Area F-3 modifies this rate to a net of approximately \$.90. The city of Pittsburg has one of the highest fire tax rates in Contra Costa County -- a gross rate of approximately \$1.20. The return from the fire contract with County Service Area F-4 modifies this rate to a net of approximately \$1.00.

The unusually high tax rate and the need for the many existing and future facilities would be alleviated with a combined fire service in the study area. The remaining necessary facilities would be funded by a broader, more uniform and lower tax rate. Funds would then be available for the upgrading and upkeep of the remaining structures and equipment. In addition, uniform pay scales could be achieved (which would mean an up-grading in pay for Pittsburg fire fighters) and employee benefits

could be improved. Work hours could also be made uniform as could service levels in the two cities. Lastly, fire classes in the area would be identical.

One of the underlying political factors which have so far outweighed the economic advantage of providing one fire service area is that the fire chief of this combined service would be a battalion chief, putting local control in jeopardy.

Nevertheless, political vanity in this situation does not appear to outweigh the above arguments for the combined facilities. Therefore, it is recommended that the City Councils of Pittsburg and Antioch initiate a combined fire fighting service, or seek entry into the County Fire District.

Police Services

Funding of police services is accomplished through the city budget, which consists of such things as property taxes, sales taxes, traffic tickets (in this case), and a variety of other sources. In the study area there are presently a total of 56 full-time policemen. The majority, 33, belong to the Antioch Police Department. In addition, Antioch retains a civilian force of nine employees and a reserve police force of 25 men. The 22-man Pittsburg full-time force is augmented by 32 reserves.

Health Facilities

The health facilities of the area are not funded by the city budgets. Pittsburg operates a municipal hospital which receives funds from local taxes along with federal support. Antioch has basically two privately owned and funded facilities which receive federal aid. Delta Memorial Hospital is a 53 bed facility with modern equipment and an active medical staff of 26 which is supplemented by a courtesy staff of 85. This hospital

has no outpatient service. The other facility is Kaiser Clinic with a total medical staff of 14. This facility does have an outpatient clinic but Kaiser's facilities are only available to its members.

Pittsburg has three medical facilities. Pittsburg Community Hospital is a 100 bed facility with a recently initiated 24 hour emergency service, but it lacks an outpatient clinic. A county clinic is also located in the city, which is basically an outpatient clinic for the medically indigent. This facility also has some psychiatric services. The third facility is located in the Community Center in the downtown area and is oriented toward health education rather than medical help. This facility is primarily for the use of Model Cities residents.

One of the main problems in the study area pertaining to health services is that of public transportation. The following was taken from the "County Plan for Health" (first draft), obtained from the Comprehensive Health Planning Association of Contra Costa County. "Non-emergency transportation is a vital factor in health service provision. Inaccessible services are valueless, and limited accessibility means limited service. Public transportation is necessary for a number of health related activities. Physician, hospital, and clinic visits are vital requirements, but accessibility to grocery stores, recreational and educational activities and employment also have a profound effect on community health status...Quite often, those people who are in most dire need of transportation for medical purposes do not have access to a means of conveyance. They may be too poor to own a car, they may be physically handicapped, or perhaps too old or too ill to drive one. If these people must depend on rides from friends and relatives, they might become discouraged from seeing a doctor until it is absolutely necessary. In the interim, their health status declines and hardship and the private and social costs of treatment and rehabilitation are increased.

"Presently, methods of public conveyance which may be utilized for health related purposes are restricted to a few general and specialized bus lines and voluntary agencies. While these transportation systems meet some of the health needs of the populous, a large gap exists. The bus lines serve only a portion of the people. Limited routes and infrequent scheduling mean that only those living in specific geographic areas of the county can utilize these services for medical purposes. The voluntary agencies largely suffer from a lack of financial resources. They are a stop-gap measure which eliminates some of the transport inadequacies within Contra Costa County. Usually they must depend on voluntary drivers to contribute their time and the use of their automobile. It is no wonder that these groups are unable to meet a large percentage of the transportation requests made to them. The lack of continuity in the transport services they provide often discourages individuals in need from seeking them out.

"The city of Pittsburg contracts with the Pettas Transportation Company to provide local bus service along a one-way loop route between downtown Pittsburg and most parts of the city. Six trips are operated daily Monday through Friday, departing from downtown between 9 a.m. and 5 p.m. Stops are made anywhere on signal and at the request of passengers. The operation has averaged 34 passengers per day.

"Contra Costa County Medical Services contracts with this organization to operate seven buses to the County Hospital and clinics and to medical facilities in Napa, Berkeley, Oakland and San Francisco. Only those who do not have the means or the way to go to private medical facilities may use this service. Passengers are not charged for the service.

"Currently, the system is carrying between thirty-five and thirty-eight hundred people per month and deriving around \$6,500 per month from

County Medical Services for operations. Four general routes are followed and patients are picked up and delivered to their homes or to nearby intersections. The system is quite flexible; patients who need transportation request it when they make their medical appointment. Clerks record the requests, make up schedule rosters and give them to the drivers. They provide service five days a week, during clinic hours.

"In addition to the above transportation network, County Medical Services also contracts with several taxi cab companies to deliver patients and provides some of its patients with transportation money if they have no other means of getting home. Recently County Medical services requested a \$120,000 transportation budget and received \$75,000."

There are also a number of voluntary drivers in the area who are unfortunately not provided with automobiles nor gas.

From the above observations it becomes obvious that, even with the best in medical facilities, many residents need an adequate means of transportation if they are to use these facilities.

There are several agencies that feel the health services in this area are not adequate. Two of these agencies are the Comprehensive Health Planning Association of Contra Costa County and the Model Cities Agency. They suggest that not only is there a lack of facilities such as outpatient clinics for certain segments of the community, but also a shortage of every type of medically trained help. In some cases physicians are actually leaving the area. The new junior college may compensate slightly for this by providing some medical help, but there are relatively few or no specialists in the area. It is estimated that 60-70% of the people seeking specialists travel outside the city to Concord (from Comprehensive Health Planning) and the lack of more than one outpatient clinic forces patients to travel to specific doctors' offices for care. Those people in the Model

Cities Neighborhoods basically travel to the County Hospital in Martinez for help.

At present the Comprehensive Health Planning Association of Contra Costa County has placed a moratorium on both Pittsburg Community Hospital and Delta Memorial Hospital, barring further funds for additions. This act is an attempt to force a merger of the two existing hospitals. Such a merger might mean improved and more extensive facilities and would hopefully enable the combined efforts to provide those services most needed at the present. Moreover, this merger would possibly attract much needed medically trained personnel to the study area. However, until hospital administrators and owners begin thinking in terms of health care in the whole study area rather than their respective cities, a step toward improved health facilities will not come about. Most important, the above actions would have no meaning without a comprehensive study to pin-point the inadequacies and deficiencies in the services of the area. The Comprehensive Health Planning Association has recently completed a first draft of a "County Plan for Health for Contra Costa County." This report deals with the county in general and therefore does not have specific relevance for our study area. Consequently, in order to ascertain deficiencies and what is needed to attract medically trained personnel to the area, CHPA must initiate a specific study for Pittsburg and Antioch. Only after such action should a merger of facilities or other actions be implemented.

Schools

Other entities not responsible to the city council are the school districts. Their funds are obtained through district taxes and aid from the state. Their autonomy allows them to set up their own district boundaries

which do not necessarily coincide with city boundary lines, and also set district tax rates. Both Pittsburg and Antioch Unified School Districts include the industrial plants located outside their respective city limits. Therefore, the total assessed value for Antioch's Unified District is \$128,447,082 and \$139,844,286 for Pittsburg Unified. Antioch's total assessed value per average daily attendance (ADA) is \$26,705 for elementary and \$36,145 for high school. Pittsburg on the other hand, is assessed at \$40,382 for elementary and \$49,526 for high school. The total tax rate is \$5.087 for Antioch and \$4.750 for Pittsburg. It appears from the preceding information that funding for these two districts is fairly similar and adequate for the area. However, tax rates are not the only source of support for the districts. They are also funded by the state according to their ADA; whereby the state pays each district a certain sum per pupil in attendance. In this respect both Pittsburg and Antioch are classified as Basic Aid Communities, which means they receive the minimum payment rate and are not eligible for such options as 100 year loans as would an impoverished District. However, Pittsburg does receive compensation for its minority enrollment.

Figures 8, 9, and 10 show breakdowns in attendance of the two school districts. The totals in Figure 10 show that the increase in attendance of Antioch schools is more than twice that of Pittsburg schools. One of the possible explanations for this may be seen in the minority enrollment statistics in Figure 11. Pittsburg's figure of 52.8% is far above that of 16.7% for Antioch Unified. Although this factor may not be the exact and single factor, it does hold some significance.

In the City of Pittsburg, about 60% of graduating high school seniors go on to some form of higher education. In addition, there are numerous adult education classes offered. These are basically connected

CONTRA COSTA COUNTY DEPARTMENT OF EDUCATION
Floyd Marchus, County Superintendent
Pleasant Hill, California

Elementary Enrollment by District in Contra Costa County - October, 1971

District	K	I	II	III	IV	V	VI	VII	VIII	Special Classes	Total October 1971	Total March 1971	Total October 1970	Total March 1970	% Increase 1970-71
Antioch Unified	684	655	674	693	681	660	668			52	4,767	4,669	4,628	4,567	3.0
Brentwood Union	90	123	131	91	112	133	116	122	125	39	1,082	1,040	1,071	1,039	1.0
Byron Union	30	27	23	40	40	31	43	32	31		297	293	287	290	3.5
Canyon	7	0	5	6	5	5	4	2	5		39	38	37	29	5.4
Knightsen	30	34	36	38	28	33	25	40	31		295	282	284	297	3.9
John Swett Unified	114	144	125	142	155	156	149	169	144	0	1,307	1,386	1,408	1,441	-7.2
Lafayette	331	342	400	404	419	478	458	496	458	26	3,812	3,976	3,966	4,197	-3.9
Martinez Unified	325	343	344	344	345	373	390			17	2,481	2,600	2,599	2,630	-4.5
Moraga	236	252	272	260	288	298	320	300	292		2,518	2,454	2,420	2,374	4.0
Mt. Diablo Unified	3,186	3,371	3,562	3,607	3,649	3,915	3,849			493	25,632	26,585	26,612	27,151	-3.7
Oakley Union	96	107	111	130	105	102	122	97	138		1,008	1,014	1,036	1,014	-2.7
Orinda Union	274	252	277	312	290	380	364	385	431	32	2,997	3,172	3,190	3,297	-6.0
Pittsburg Unified	483	511	464	474	461	475	475			91	3,434	3,426	3,407	3,375	.8
Richmond Unified	3,101	3,069	3,112	3,085	3,287	3,152	3,282			346	22,434	23,278	23,390	24,123	-4.1
San Ramon Vly. Unif.	602	730	736	799	849	878	805	827	817	9	7,052	6,590	6,380	6,162	10.5
Walnut Creek	343	352	350	383	414	422	431	456	504	54	3,709	3,941	3,978	4,105	-6.8
Total	9,932	10,312	10,622	10,808	11,128	11,491	11,501	2,926	2,976	1,168	82,864	84,744	84,693	86,091	-2.2
County Total K-12											143,965	143,681	144,663	144,236	-.5
County Total K-14											157,390	155,626	157,014	154,840	.2

Fig. 8

Secondary Enrollment by Districts in Contra Costa County October, 1971

District	VII	VIII	IX	X	XI	XII	XIII	XIV	Continu- ation Classes	Special Classes	Total October 1971	Total March 1971	Total October 1970	Total March 1970	% Increase 1970-71
Acalanes Union			1,779	1,828	1,685	1,794			42	373	7,501	7,316	7,500	7,205	.01
Antioch Unified	633	607	631	549	570	449			22	61	3,522	3,355	3,364	3,212	4.7
John Swett Unified			161	134	137	131			50	11	624	624	645	646	-3.3
Liberty Union			329	334	258	234			46	15	1,216	1,146	1,158	1,055	5.0
Martinez Unified	381	333	403	401	390	346			32	17	2,303	2,268	2,290	2,348	.6
Mt. Diablo Unified	3,888	3,722	3,690	3,828	3,483	3,225			109	127	22,072	21,367	21,673	21,118	1.8
Pittsburg Unified	480	428	490	415	414	384			72	117	2,800	2,664	2,730	2,701	2.6
Richmond Unified	3,181	3,152	3,369	2,887	2,618	2,132			399	220	17,958	17,449	17,844	17,375	.6
San Ramon Vly. Unif.			825	838	713	644			75	10	3,105	2,748	2,771	2,485	12.1
TOTAL	8,563	8,242	11,677	11,214	10,268	9,339			847	951	61,101	58,937	59,975	58,145	1.9
Contra Costa Jr. College							10,119	3,306			13,425	11,945	12,346	10,604	8.7
7th and 8th Grade (Page 1)	2,926	2,976													
COUNTY TOTAL Including Jr. College	(11,489)	(11,218)	11,677	11,214	10,268	9,339	10,119	3,306	847	951	74,526	70,882	72,321	68,749	3.1

Fig. 9

Junior College District Enrollment - October, 1971

District	DAY CLASSES				EXTENDED DAY CLASSES				Total Full Time and Part Time
	Full Time	Part Time		Total	Full Time	Part Time		Total	
		Adults	All Others Part Time			Adults	All Others Part Time		
Contra Costa Jr. College									
13th Grade	6,006	1,158	2,955	10,119	94	4,261	1,042	5,397	15,516
14th Grade	2,326	345	635	3,306	54	745	151	950	4,256
Tot 1	8,332	1,503	3,590	13,425	148	5,006	1,193	6,347	19,772

TOTALS OF UNIFIED DISTRICTS*	October 1971	March 1971	October 1970	March 1970	% Increase 1970-71
Antioch	8,289	8,024	7,992	7,779	3.7
John Swett	1,931	2,010	2,053	2,087	-5.9
Martinez	4,784	4,868	4,889	4,978	-2.1
Mt. Diablo	47,704	47,952	48,285	48,269	-1.2
Pittsburg	6,234	6,090	6,137	6,076	1.6
Richmond	40,392	40,727	41,234	41,498	-2.0
San Ramon Valley	10,157	9,338	9,151	8,647	11.0
Total	119,491	119,009	119,741	119,334	- .2

*Kindergarten to 12th grade inclusive
October, 1971 BF:ck 350c

Fig. 10

FIG. 11 - RACIAL AND ETHNIC SURVEY
CONTRA COSTA COUNTY PUBLIC SCHOOLS - OCTOBER 1971
GRADES K - 12

	American Indian	Black	Oriental	Spanish Surname	Filipino and other Minorities	White (other than Spanish Surname)	Total	Total Minority Group	% Minority Group
Brentwood Union	4	2	9	378	5	712	1,110	398	35.9
Byron Union			1	82		214	297	83	27.9
Canyon		2		1		36	39	3	7.7
Knightsen				74	1	215	290	75	29.0
Lafayette	2	6	35	53	5	3,713	3,814	101	2.6
Moraga		2	33	15	10	2,461	2,521	60	2.4
Oakley Union	1		4	282	11	712	1,010	298	29.5
Orinda Union	1	13	39	25	2	2,917	2,997	80	2.7
Walnut Creek	4	9	42	127	8	3,525	3,715	190	5.1
Acalanes Union High	9	9	41	60	6	7,063	7,188	125	1.7
Liberty Union High	1		9	307	9	863	1,189	326	27.4
Antioch Unified	133	9	75	1,059	109	6,882	8,267	1,385	16.7
John Swett Unified		85	5	213	8	1,624	1,935	311	16.1
Martinez Unified	11	49	20	447	36	4,272	4,835	563	11.6
Mt Diablo Unified	68	417	472	1,679	255	44,846	47,737	2,891	6.1
Pittsburg Unified	19	1,806	48	1,240	229	2,985	6,327	3,342	52.8
Richmond Unified	67	11,699	1,285	2,449	382	24,941	40,823	15,882	38.9
San Ramon Valley Unified	15	44	52	148	14	9,830	10,103	273	2.7
County Schools		102	6	62	11	431	612	181	29.6
COUNTY TOTALS	335	14,254	2,176	8,701	1,101	118,242	144,809	26,567	18.3
Percent of Total	.2%	9.8%	1.5%	6.0%	.9%	81.6%			

with the school district and offer such courses as carpentry, bookkeeping, nursing, and a variety of vocational and self-improvement classes. Also, Diablo Valley College offers extension courses for the residents of the area. Other organizations such as Human Resources Development and Welfare sponsor work incentive programs. U. S. Steel offers apprenticeship programs for its employees.

For students in junior high school and high school, the Federal government requires school districts to have a continuation program. This program is for students who, for one reason or another, cannot finish their education through a normal course of study at school. They are, therefore, tutored on an individual basis in order to receive their degree. These students would otherwise become "drop-outs." For the 1971-72 term the dropout rate for the Pittsburg Unified School District was 9%.

About 40% of Antioch's graduating seniors go on to some form of higher education. Presently, approximately 60% of the high school students are enrolled in some sort of vocational training. The city's adult education system is as extensive as that of Pittsburg's. In addition, the Mount Diablo School District offers a variety of summer classes; the students of Antioch are encouraged to participate. Although Antioch's continuation program had been a failure in the past, their present dropout rate is about 1%.

The problem in these cities does not appear to be the educational system, but rather the lack of jobs for those graduates who remain in the area. Possibly a closer cooperation between educators and industry might bring about some feedback as to what vocations are deficient and what curriculum could be implemented to produce graduates who may fit into these industries.

Water and Utilities

The City of Pittsburg provides potable water to its residents and a few farmers and industries on the fringes of the city. The water is taken from the Contra Costa Canal and pumped to the water treatment plant where coagulation, sedimentation, filtration and post chlorination are accomplished. The plant was built in 1952 and has had no major additions or improvements.

The Bay Water Service presently serves the developed area of West Pittsburg. The system consists of pumping stations which take water from the C.C.C.W. Department and lift it into 500,000 gallon reservoirs.

Users of the water are billed for the purification and distribution of the water by the city. In addition, the residents pay a small water district tax to the county.

Gas and electricity are provided by P.G. and E. whose rates are set by the State Utility Commission as are the rates for telephone service provided by Pacific Telephone.

Antioch is also served by Pacific Telephone and a 1,270,000 KW steam electrical generating plant owned by P.G. and E. The city provides water from its own water district and purification plant.

The variety of facilities and entities supplying water to the study area appears to be a redundant and unnecessary expenditure of capital. It is therefore recommended that the city councils of these two cities consider the possibility of 1) combining the facilities of the two cities into one water distribution system which would mean a more uniform, less expensive, and more efficient system, or 2) participation in a county or region wide water district, such as that planned by the East Bay Municipal Water District. One of the above solutions

would mean lower rates and more efficient services for the residents of the area.

Sewage

Antioch operates its own sewage plant which is considered sub-standard according to the standards set by the Water Quality Control Board for the Bay Region. Furthermore, it has been noted that the sewage plant has a discharge upstream 200 yards from the city's drinking water reservoir intake line.

In contrast, the City of Pittsburg has two separate waste-water collection and treatment facilities. The northern portion and the area west of Railroad Avenue is collected and taken to the Montezuma Plant for processing. The southeasterly portion is collected and treated at the Camp Stoneman treatment plant.

Both facilities provide only primary processing. The Stoneman Plant has a bar screen and shredder for pre-treatment and two primary clarifiers. The Montezuma Plant has a bar screen, shredder and grit removal for pretreatment followed by short aeration periods. The southeasterly collection system is better than its westerly counterpart, primarily due to more recent construction. Several sewage lift stations have been used to transport wastewater to the desired location and the pumping capacities are adequate for present demands.

The sewage treatment plants in both cities have been deemed sub-standard by the Bay Region Water Quality Control Board. This fact illuminates another example of the competition rather than cooperation between the two communities. Each individual community has spent and has plans to fund additional amounts of money to upgrade and retain their "own" facilities. However, the cost of this upgrading is not justifiable to the citizens of this area.

A logical solution to this problem would be the combining of the services into one sewage plant serving the two cities or even a larger area. In doing so, redundant equipment and facilities would be eliminated thereby cutting costs. In addition, a broader funding base would be created. To go one step further the plant should be a reclamation plant located in an industrial section of one of the cities. This would eliminate an offensive eye and nose problem for the residential areas and place the plant in an area where there is the greatest potential market for the reclaimed water.

Another alternative, as suggested for water supply, would be to become part of a regional sewage collection system. In this case, the responsibility of implementation would fall on the shoulders of 1) the Environmental Protection Agency, 2) the Association of Bay Area Governments, and 3) the cities of Pittsburg and Antioch themselves who have the responsibility for the general welfare of their residents.

3. Community Service Organizations

A sizable number of community services are available to residents of the Pittsburg-Antioch eastern county area, although the sheer number of these services is not an indication of how well they fill the general need. Services are provided by organizations with varying origins: local organizations, extensions of county services, or those services which the county or other governmental authority has taken over and which were formerly carried on strictly by local volunteers. The present sources of funding for these organizations reflect this diversity. A good deal of cooperative helpful spirit is in evidence, sometimes enabling small groups to carry on useful and constructive efforts in seemingly impossible circumstances.

The availability of governmental funds to autonomous local organizations has frequently had strikingly productive results. Loss of autonomy by a group whose financing and staffing has been taken over by a county, state or federal agency may provide more substantial funding in the short term, but may lead to sudden termination of a project when higher-ups in the bureaucracy, operating from a state or federal office hundreds of miles away, suddenly decide to discontinue a whole category of projects. Many of the present organizations we will discuss are permanently under such a potential threat.

The cities of Pittsburg and Antioch, and the towns in the eastern portion of the county are close enough together to permit a substantial amount of cross-traffic in terms of the usage of the facilities and services provided by the various community organizations. Typically, the cooperative spirit which animates these volunteer efforts makes possible this sharing of resources, while severe difficulty is encountered when the equivalent pooling of effort is attempted at the governmental level. There are a sizable number of cross-referrals between agencies, particularly between the county Social Services (Welfare) offices and one or another volunteer or government-funded community organization. Some organizations are specifically set up to provide information to residents as to what county services are available to them.

The list of services provided here may not be complete (indeed, no single office has such a complete listing available), but it suggests what is presently available and the areas where lack of adequate services is most acutely felt.

I. Services Provided from Outside the Area (available to both Pittsburg and Antioch)

- 1) The Rotary Club of Concord has provided a minibus which travels to different towns in the county (Pittsburg and Antioch each have their

day every week) and makes its transportational services available to senior citizens (62 and over). Thus, one day per week senior citizens without access to other transportation can visit friends, go shopping, travel to medical facilities, etc., without charge.

2) An office in Sacramento, apparently operating under a federal grant from the Commission on Aging, operates in the eastern part of the county a "Meals on Wheels" program. Meals are cooked at the Pittsburg hospital and delivered to home-bound residents in the area (including the eastern end of the county). A charge is made for this service (\$1.75 maximum), depending on the recipient's ability to pay.

II. Services Based in Antioch and the Eastern Towns

A) General adult services

1) The Antioch Branch of the Volunteer Bureau of Contra Costa County attempts to place volunteer workers in community service jobs wherever such openings are available. In many cases, these jobs involve assisting in county offices. The bureau is funded by United Bay Area Charities (UBAC).

2) Day care facilities are provided for a fee at the Sobig Nursery School. Mothers volunteer to work for this service, located in a rented building at the Fair Ground.

3) The REACH project, primarily directed to drug-abuse problems, offers some marital counseling services.

4) An adult literacy program operates in the area, run by volunteers who have attended a 3-meeting course in the "Lauback system" taught by Dr. Likens of Berkeley. The American Association of University Women (AAUW) sponsors the program. Adults unable to read English may be referred to the tutors by the Social Services (Welfare) office.

5) There are private fraternal lodge organizations in Antioch.

B) Ethnic-minority program

A Spanish-speaking people's organization is operated in Oakley as an agency of the OEO. As was noted in Section II-D, a sizable number of Mexican-Americans live in the eastern portion of the county, and this organization helps individuals with language problems and related problems to avoid the red tape involved in getting access to county services and programs.

C) Health program

A community clinic was set up in Brentwood some years ago by a cooperative group who remodelled an old building at their own expense. The County provided the services of a doctor at that time, and continues to today. The County has now taken over the financing of the clinic, providing medical supplies and nursing services.

D) Job training programs

1) A vocational-training program is administered in the local high school. Students get academic credit for putting in up to 50% of their school hours learning a trade in a local business.

2) A Job Advancement Training Center, run by a private firm, provides training as its name indicates.

3) Youth on probation may be sent by the county to the Volunteer Bureau of placement in landscaping jobs at the local hospital, or to do clerical work at convalescent homes and other medical facilities in the area.

E) Youth-oriented organizations

1) Boy Scout and Girl Scout troops operate in the area, both with programs for younger children (Cub Scouts, Brownies, etc.) down to age 8.

2) "Young Life," a non-denominational church-oriented group, runs a summer camp for high school age youth, and holds weekly meetings during the school year.

3) "Young Ladies' Institute" and "Young Men's Institute" are social programs for Catholic youth.

4) Problem youngsters from broken homes or with minor criminal records may be sent to Byron Boy's Ranch School, which accepts boys through high school age. The County Probation Department oversees this facility.

5) A recreation program is operated in Oakley by volunteers, aiming at a 1:1 volunteers-youth ratio.

6) A Neighborhood Youth Corps also operates in Oakley, placing young people in jobs. Their salaries are paid by the organization, rather than by the employers.

7) "REACH" is a drug-abuse prevention program, in which police officers and older students work in the elementary schools to try to discourage the use of drugs.

F) General Information Service

At the present time, no single office has information available on all the county and community services available in the area. Mr. Eblen of the REACH program is presently trying to establish such a coordinating service.

III. Services Based in Pittsburg

A) General

There are three separate OEO (Office of Economic Opportunities) sponsored organizations in Pittsburg, whose functions overlap to a certain extent. (The local OEO head office is in Martinez.) They are:

(1) Concerted Services Project, Inc.

(2) Volunteer Coordinator office

(3) United Council of Spanish-Speaking Organizations

Each is concerned with collecting information on the various services available in the community and making this information available to area

residents; the last-named specializes in the problems of Spanish-speaking citizens. The organizations serve and administer a variety of other functions, as noted below.

A Program Summary published by Concerted Services in 1967 listed "services which can be identified and can be made available through the concerted services approach" as follows:

Training and Job Upgrading for Youth

Day Care and Child Care Facilities

Home Management Training

Homemaker Services

Senior Citizen Activities

Health Care and Services

Dental Clinics

Adult Vocational Training and Rehabilitation

Community Improvement

Family and Marital Counseling

Vocational Guidance and Career Workshops

Cultural Programs

Recreational facilities and Programs

Responsible Citizenship Workshops

All of these Programs are subject to the problems of organization and funding, not least the Concerted Services Project itself. Having begun as a genuine local organization, this project now faces possible centralization of planning functions, and to that extent, possible loss of contact with real community needs. There also seems to be a major question of continued funding even for the next few months. Its own staff members and the staff of other organizations are uncertain of the future, but this seems to be a common situation for community organizations of the kind we are discussing.

B) Adult organizations

- 1) A senior citizen's organization operates in West Pittsburg, providing meeting facilities for the elderly.
- 2) Some marital counseling/family planning advice is available from a Catholic social worker.
- 3) The Volunteer Coordinator office avoids unnecessary formality. Volunteers collect used clothing and furniture and distribute it, either using their own private cars or calling on friends for assistance. They also provide transportation when needed in an emergency on the same basis.
- 4) A collective grocery-buying program is administered under the Concerted Services Project, in which weekly orders for food are pooled in order to take advantage of bulk prices.
- 5) The County Welfare Office provides a legal aide service, to which the various community offices frequently refer people.

C) Youth-oriented organizations

- 1) A Boy's Club operates in Pittsburg.
- 2) Boy Scouts and Girl Scouts have organizations in Pittsburg, the former offers a Cub Scout program for younger boys. There is no equivalent program available (Brownies) for younger girls.
- 3) Young Men's Institute and Young Ladies' Institute, Catholic youth organizations, offer programs.
- 4) The United Council of Spanish Speaking Organizations provides social activities for Spanish-surname teenagers. They report that a new recreation center is under construction, receiving funds from a Model Cities Program.
- 5) A successful volunteer tutorial program was formerly operative. High school students contributed their time to teach younger pupils, especially those from underprivileged homes. Typical of the spirit displayed

in these volunteer efforts, the tutors often shared more than just their academic skills with the children: reportedly, the youngsters would often stay overtime. This project has been discontinued.

D) Employment organizations

1) The United Council of Spanish Speaking Organizations tries to find jobs for Spanish-speaking citizens, and attempts to oppose existing barriers now preventing their employment. For example, the Council is focusing attention on the possibility of employing Spanish-surname citizens as teachers in the public schools. Blacks comprise about 25% of the population of Pittsburg, and 30 Black teachers are employed in the local school system. Spanish-surname citizens make up about 27% of the community and only 8 are employed as teachers. A 5'7" minimum height restriction also prevents many Spanish-surname citizens from serving on the Pittsburg police force.

2) A Neighborhood Youth Corps project is operative under Concerted Services. Youth are given part-time jobs in non-profit organizations, their salaries being paid by the NYC.

3) The Volunteer Coordinator office trains girls in office/clerical work, in its own office.

4) A Manpower Development Training Action (MDTA) program operates in Concord. Two projects aimed at vocational training and rehabilitation are located in Pittsburg: a "DVR" program, where handicapped workers learn various skills, and a "WIM" program, which gives courses in nurse-aide skills to workers who lack other training and are not presently employable.

5) A "Many Hands" recycling project operates with volunteer supervisors. Objects made from recycled materials are sold and the proceeds are distributed among those who made the objects.

6) The State maintains employment offices (Human Resources Development Board) whose function overlaps with other agencies such as the Concerted Services Project. Of course, these organizations, while they make services available to the community on a volunteer basis, cannot create jobs. And this lack of jobs remains a critical problem.

Conclusions

Community volunteers are doing what they can to make their services available to each other and to the community. Funds are desperately needed to provide better recreation facilities for youth. Boredom is a critical problem in both cities, drug abuse is consequently a problem, and no amount of puritannical exhortation from equally-bored adults will alleviate this situation unless meaningful activities for youth can be organized. The spirit to organize and operate such facilities is not lacking: only the money is.

It would also be highly desirable for adults to have accessible meeting places where they could "get together" in the deeper sense of the term. The situation is aggravated, of course, by the substandard housing in which so many of the area's residents live: to meet with friends in one's own home is highly impractical under such circumstances. Commenting on the general situation in Pittsburg, the Concerted Services Program (1967) wrote: "As a result of the combination of personal and cultural poverty, physical and social distances and isolation, and environmental deficiencies, life in these areas tends to be dreary, formless, shallow, and frustrating. There is little sense of peace, of belonging, or of the satisfying and supporting feeling of community which are so essential to the support of personal happiness, security, and maximum achievement." In Antioch, while material standards are by and large higher, and while there is a community

of long-time residents among whom a sense of community persists, the problem of social distances and consequent loneliness remains persistent, and the greater availability of community meeting places would be a constructive step in remedying this.

Full attention to the employment problem is given in Section III-E. There does not appear to be much more that community organizations can do in this regard. Private industries do hire some students in summer jobs, and the problem of employment for youth is not restricted to the Antioch-Pittsburg area. Volunteer programs in which older youth act as guides and tutors for younger children have been beneficial and rewarding in the past and ought certainly to be given a chance to continue in the future.

4. Summary of Recommendations

I. City Government

Cooperation between the city councils of Pittsburg and Antioch should be initiated for the general welfare of the two cities. This should be done from an economical and practical point of view in spite of political differences.

II. Fire Services

The fire facilities for these two cities should combine services or join the county fire district. This action should be implemented by the joint efforts of both city councils.

III. Health

A study to find specific problems and deficiencies in the health facilities of these two cities should be conducted by the Comprehensive Health Planning Association. Only after such a study can definite recommendations be presented for possible action.

IV. Water and Sewage

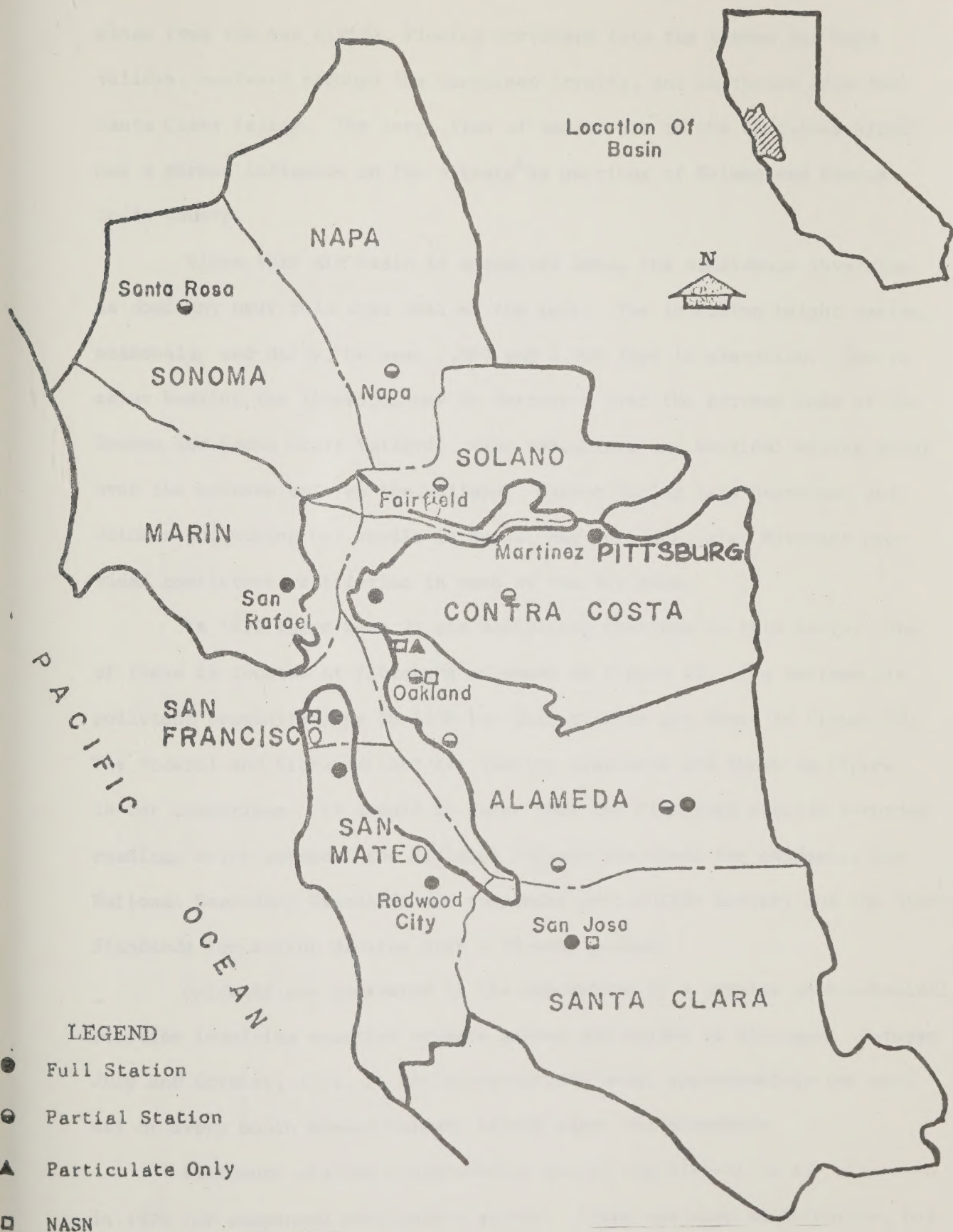
It is recommended that all levels of government -- federal, regional, and city -- encourage these two cities to either combine their present facilities into one facility, or become part of an overall regional system.

III-B Environmental Considerations

The environment has been the subject of much discussion in recent years. As used in this report environment means the sum of all external conditions that affect growth or development, including man, animals, and plants. Often distinctions are made between the "natural" environment (air, water, trees), and the "man-made" environment (houses, roads, cities). Urbanists who once were concerned only with the improvement of the man-made environment lately have become increasingly aware and concerned with the dislocations of the natural environment by the man-made one. Studies have noted the ability of cities to change the climate of an area, contributing to drought, flooding, pollution of the air, water, soil as well as contributing to a host of other ecological disasters.

In the above context, pollution is defined as the fouling of the air, water, and soil by the introduction of elements that are injurious or corrupting to its natural state. This includes any material which affects the natural environment, such as hydrocarbons and particulate matter in the air, which can be readily seen and identified by the average citizen. Some forms of air, water, and soil pollution, however, are not so readily identified by a cursory examination until their ecological damage is irreparable.

The East Contra Costa County Study Area is a part of the San Francisco Bay Area Air Basin as shown on Figure 12. During much of the year



SAN FRANCISCO BAY AREA AIR BASIN

Fig. 12

winds from the sea divide, flowing northward into the Sonoma and Napa valleys, eastward through the Carquinez Straits, and southward into the Santa Clara Valley. The large flow of marine air to the Carquinez Strait has a marked influence on the climate in portions of Solano and Contra Costa County.

Since this air basin is a coastal area, the subsidence inversion is dominant over this area most of the year. The inversion height varies, seasonally and daily, between 1,000 and 3,000 feet in elevation. Due to solar heating the inversion may be destroyed over the extreme ends of the Sonoma and Santa Clara Valleys. Wide variations and vertical mixing occur over the extreme ends of the valleys. Except during late September and October and during hot spells in April, May, or June, wind movement provides consistent ventilation in much of the Bay Area.

In 1970 there were 25 air monitoring stations in this basin. One of these is located at Pittsburg as shown on Figure 12. The maximum air pollutant concentrations in 1970 for this station are shown in Figure 13. The Federal and State ambient air quality standards are shown in Figure 14 for comparison. It should be noted that the Pittsburg station recorded readings which exceeded the National Primary Standards for oxidants; the National Secondary Standards for suspended particulate matter; and the State Standards for sulfur dioxide over a 24-hour period.

Oxidants are generated in the atmosphere by a complex photo-chemical reaction involving reactive organic gasses and oxides of nitrogen. Between July and October, 1971, in Pittsburg-Antioch area, approximately one week out of every month showed oxidant levels above the standards.

Pittsburg station registered as one of the highest in the air basin in 1970 for suspended particulate matter. There are many contributors, but an example is the PG&E plant that has a total 29.3 tons of contaminants per

CONTAMINANT		NUMBER OF SAMPLES	MAX. 1 HR. AVG.	MAX. 3 HRS. AVG.	MAX. 8 HR. AVG.	MAX. 24 HR. AVG.	ANNUAL A.M.	ANNUAL G.M.
Ox	ppm	Cont.	0.24				0.026	
CO	ppm	Cont.	10		5		1.8	
SO ₂	ppm	181				0.059	0.006	
NO ₂	ppm	Cont.					0.025	
HC	ppm	Cont.		7			2.7	
Part. Matter	µg/m ³	148				217		62

Figure 13 .
 1970 Maximum Air Pollutant Concentrations
 Pittsburg Station, Contra Costa County
 January-December 1970

Figure 14
 AMBIENT AIR QUALITY STANDARDS
 APPLICABLE IN CALIFORNIA

POLLUTANT	Averaging Time	California Standards	Federal Standards ³	
		Concentration	Primary ¹	Secondary ²
Photochemical Oxidants (Corrected for NO ₂)	1 Hour	0.10 ppm	0.08 ppm	Same as Primary Std.
Carbon Monoxide	12 Hours	10 ppm	-	Same as
	8 Hours	-	9 ppm	Primary
	1 Hour	40 ppm	35 ppm	Standards
Nitrogen Dioxide	Annual Average	-	0.05 ppm	Same as
	1 Hour	0.25 ppm	-	Primary Standards
Sulfur Dioxide	Annual Average	-	0.03 ppm	0.02 ppm
	24 Hours	0.04 ppm	0.14 ppm	0.10 ppm
	3 Hours	-	-	0.5 ppm
	1 Hour	0.5 ppm	-	-
Suspended Particulate Matter	Annual Geometric Mean	60 µg/m ³	75 µg/m ³	60 µg/m ³
	24 Hours	100 µg/m ³	260 µg/m ³	150 µg/m ³
Lead (Particulate)	30 Day Average	1.5 µg/m ³	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Hydrocarbons (Corrected for Methane)	3 Hours (6-9 a.m.)	-	0.24 ppm	Same as Primary Standards
Visibility Reducing Particles	1 observation	Visibility to 10 miles when the relative humidity is less than 70%	-	-

NOTES:

1. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the Environmental Protection Agency (EPA).
2. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after implementation plan is approved by the EPA.
3. Federal standards, other than those based on annual averages or annual geometric means, are not to be exceeded more than once per year.

day of which 1.1 tons is particulate matter. This total contaminant level is more than twice that of any other PG&E plant in the Bay Area.

Sulfur dioxide is considered a major air pollutant that may damage the respiratory tract as well as vegetation. Although the Dow Chemical, Johns-Manville Corporation and PG&E plants in the study area are sources of sulfur dioxide, Phillips Petroleum and Shell Oil in Martinez, and Industrial Chemical and Standard Oil in Richmond are far worse polluters. It may be that the wind patterns discussed previously help create a pollution problem in the Pittsburg-Antioch Area which is not caused by their own industries.

In the Implementation Plan for the Achievement and Maintenance of National Ambient Air Quality Standards in California as required by Section 110 of the Clean Air Act as amended in 1970, and in accordance with the U. S. Environmental Protection Agency requirements for preparation, adoption, and submittal of an implementation plan, the control strategy is broken into two parts: stationary sources and motor vehicles.

Some of the provisions for stationary sources that will have the greatest impact on the area under study are standards for emitted smoke, no open burning, permit required for agricultural burning, and controls on the transfer and storage of petroleum products. These stationary sources are controlled by the Bay Area Pollution Control District, which was described previously in the section on Government Influence (IIIA).

The statewide strategy for control of emission by motor vehicles has these essential elements: control programs for new and used vehicles, control of motor vehicle fuels, support of public transport, bus lanes on freeways, and improved traffic flow on freeways.

Additional programs being considered are the control of engines not currently controlled such as motorcycles, construction equipment, recreation

vehicles, etc.; periodic inspection and mandatory maintenance of vehicles; a decrease in the numbers and use of individual vehicles (the goal is a 20% reduction); conversion to gaseous fuels; and land use planning. Air pollution control will play a large role in the future of land use planning.

The confluence of the Sacramento and San Joaquin Rivers determine the extent of salinity in the San Francisco Bay, especially in the south bay region. The Bay is used for sewage discharges by communities as far south as San Jose. These communities depend upon the flushing action of the Sacramento River to remove or lower the phosphate concentration in the south bay. It is not unlikely that if the flow of the Sacramento River were reduced, a serious pollution hazard could result from the biological oxygen demand (B.O.D.) of the effluents from the communities surrounding the south bay. One study has indicated that the Sacramento River determines the removal of soluble waste materials from the south bay, especially during the seasonal high volume discharges of water.¹ This characteristic has become apparent only after the damage has been done. Another study reports that "...The Southern Estuary now exhibits the most serious reduction of benthic animal [small crustaceans] diversity due to toxicity and the highest levels of nutrients. Both phenomena are associated at least in part with an insufficiency of tidal exchange and flushing flows to dilute the municipal and industrial effluents now discharged to the area."²

The total volume of fresh water that the Sacramento River induces into the Bay to a large extent determines the time it takes for polluted water to be removed from the Bay. If this water source becomes polluted

¹Geological Survey Circular 637-A, A Preliminary Study of the Effects of Water Circulation in the San Francisco Bay Estuary, Washington, 1970.

²Biologic Ecologic Study, 1968, State of California Water Quality Control Board, Final Report, Task VII-lb, p. v-9.

the entire Bay Region will suffer the consequences. In the past, periods of low water flow have resulted in salt water intrusion into the San Joaquin River towards the eastern portion of Contra Costa County. Since river water is used for irrigation and partial water supply for the City of Antioch, the proposed regulation of the total flowage of the San Joaquin by the aquaduct project is of major concern. The soils of the eastern county are among the most productive in the United States. Careful study should be required before subjecting these soils to potential ruin for agricultural purposes by salt water intrusion or other contaminants.

As discussed earlier in Section IIIA, (Local Governmental Services), the two sewage treatment plants in Pittsburg and the one in Antioch are substandard. They have had difficulty meeting state standards as regards acidity, toxicity, and bacterial content. Ongoing monitoring has revealed that where the standard for bacteria ranges from 1,000 to 10,000 specified units, the bacterial content of the Pittsburg and Antioch region sewage has ranged from a minimum of 2,200 to 330,000,000 units. Whereas 75% of stock fish should survive in untreated water after 96 hours, in this area no fish have survived, indicating toxicity problems. The water has measured below minimum pH levels sporadically, indicating an unknown acidity problem. Discoloration of the water has been recorded. Grease on the water surface has been recorded. Odors of moderate intensity have been noted at the Montezuma plant in Pittsburg. Because of such problems, a cease-and-desist order was brought against the Montezuma plant in March, 1971; earlier, in 1969, the California Regional Water Quality Control Board (RWQCB) (San Francisco Bay Region) ordered the Stoneman plant to cease functioning until facilities could be improved. Antioch, while having a substandard sewage plant, is not under such restrictions due to its being in the Central Valley jurisdiction of the RWQCB.

The Contra Costa County Sub-Regional Study (draft) has recommended that a sewage treatment plant north of Concord treat wastes which would be intercepted and piped from Brentwood-Antioch-Pittsburg. If these recommendations are implemented, the Stoneman and Montezuma plants are slated for extinction in the coming decade, which calls into question a policy of expenditures to bring them up to standard. These recommendations have been discussed previously under Local Government Influences (Section III-A).

In the entire Bay Area the disposal of refuse is almost exclusively done by sanitary land fill. In 1963 there were 77 refuse disposal sites in the Bay Area ranging from 2 to 500 acres. At the present time, 64 percent of the refuse disposal sites are adjacent to San Francisco Bay -- 36 percent as tidelands and 28 percent as marshland. There are six separate sanitary districts in the nine Bay Area counties. In the Bay Area today solid waste disposal equals 10 million tons per year.

Contra Costa County in 1963 had 468,200 residents, 13 incorporated cities, and 16 refuse collection agencies. The average distance travelled by each of the 145 refuse collection vehicles to the land fill site was 14.4 miles. There were three publicly owned and two privately owned disposal sites, a total of 882 acres with 13,945 acre-feet of space available. Each year (but increasing) 385 acre-feet are used. At this rate using only the refuse generated in the County, these available sites will be filled by 1999.

Based on present capacities and present demands, by 1985 Contra Costa, Alameda, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties will have used more than all existing land fill sites. One estimate by the Association of Bay Area Governments states that "... It will be necessary to acquire 33,125 acres of land for the Bay's disposal

needs up to the year 2000."³ Garbage is indeed a regional problem, and a very eminent problem if the analysis of the Bay Region's capabilities is correct. In fact, Mr. John Plumb, Secretary of the East Bay Municipal Utilities District has predicted "a crisis within 10 years if the status quo is maintained."⁴

Solid waste disposal is a special problem for the eastern county area. There is presently at least one pilot project to use the San Joaquin Delta agricultural lands for solid waste disposal.⁵ This project, presently awaiting funding, proposes to dump 100 tons of organic solid waste per day in the delta area. It is possible that water might leach out organic waste materials into delta waters leading to eutrophia of the Bay waters. Stanford University Professor Rodney Beard has stated flatly that "... 90 percent of the fill projects are [now] handled improperly while local garbage collections in many areas are unsatisfactory."⁶ Apparently the concept of using the delta lands for fill has been approved by ABAG. This approval seems improper due to the obvious ground water problems inherent in such a proposal.

III-C Land Use

1. Adopted Land Use Plans

This section will provide the reader with some background as to the thinking of other organizations regarding land use planning in the study area.

³ ABAG PRELIMINARY REGIONAL PLAN, November 1966, p. 48.

⁴ SAN FRANCISCO SUNDAY EXAMINER, February 27, 1972.

⁵ Ibid.

⁶ Ibid.

a. Contra Costa County Land Use and Circulation Plan, 1985, was adopted April 18, 1963, by the County Board of Supervisors. Two of the seven objectives for this plan were oriented to growth; two were to provide for the preservation of open space and for the continuation of the agricultural program; and another was to provide for a variety of adequate employment areas. The assumptions were that San Francisco-Oakland would continue to be the core of the Bay Region; that population and economic growth would continue in the Region and Contra Costa County; that west and central Contra Costa County would develop first; and that the need for preservation of agricultural lands would be firmly established.

Existing land use, circulation system, population, housing water and sewerage are also discussed. Future land use was projected for 1985 in general terms with increases of 150% in residential; 17.5%, commercial; 150%, industry; and 100%, administrative offices anticipated over 1962 figures. The control of growth to prevent "Urban scatteration and sprawl" is advocated. However, it is estimated that open space will decrease 26% even with the expansion of recreational areas and the preservation of the agricultural areas of eastern Contra Costa County. Refer to Figures 15 and 16 for a more detailed breakdown. Population in the eastern county is estimated to increase 2-1/2 times the 1960 figure (64,098) by 1985 (165,000).

b. The Land Use and Circulation Plan for the Eastern Portion of Contra Costa County, Including a Report of the Industrial Potential for the Area, was first adopted on December 22, 1964, as an amendment to the plan discussed under section a. It was approved and adopted again February 23, 1965, by the County Board of Supervisors. This report was oriented almost exclusively to the justification of the industrial potential of the area. It explains methodology relating Contra Costa County population and industrial growth to the rest of the Bay Area. It discusses the types of

CONTRA COSTA COUNTY

	Gross Acreage	Percent of Total County Acreage (467,534)	Percent of Total County Developable Acreage (367,863 ac.*)
Residential Areas			
low density	24,622	5.26	
medium density	5,626	1.21	
high density	<u>23,917</u>	<u>5.12</u>	
multiple	54,165	11.59%	<u>14.12%</u>
Employment Areas			
Commerce	3,479	0.75	
Industry			
Major Research Facility	12,544	2.68	
Controlled Manufacturing			
Administrative Offices	<u>-</u>	<u>-</u>	<u>-</u>
	16,023	3.43%	4.35%
Open Space			
Recreation Areas	256,511	54.86	43.25
Extensive Agriculture	<u>130,597</u>	<u>27.93</u>	<u>35.50</u>
Intensive Agriculture	387,108	82.79%	78.75%
Public and Military Areas			
Public	2,708	0.57	0.73
Military	<u>7,530</u>	<u>1.62</u>	<u>2.05</u>
TOTAL	467,534	100.00%	100.00%

*Excluding 99,671 acres of extensive agricultural areas and recreation areas - Considered to be not readily developable.

Fig. 15

CONTRA COSTA COUNTY

Land Use Category	Gross Acreage	Percent of County Acreage Total	Percent of County Developable Acreage*	Change from Existing 1962 Acreage	
				Acres	Percent
Residential Areas					
low density	65,154	13.93		+40,532	+164.3
medium density	28,795	6.15		+23,169	+411.3
high density	35,871	7.67		+17,441	+ 72.9
multiple density	5,487	1.17			
	<u>135,307</u>	<u>28.92</u>	<u>36.78</u>	<u>+81,142</u>	<u>+149.3</u>
Employment Areas					
commerce	4,089	0.83		+ 610	+ 17.5
industry	29,630	6.34			
major research facility	450	0.09		+19,621	+156.4
controlled manufacturing	2,085	0.44			
administrative offices	155	0.03		+ 155	+100.0
	<u>36,409</u>	<u>7.73</u>	<u>9.89</u>	<u>+20,386</u>	<u>+127.2</u>
Open Space					
recreation areas	40,537	8.63			
extensive agriculture	159,246	34.06	27.24	-56,728	-22.1
intensive agriculture	87,474	18.71	23.77	-48,123	-33.0
	<u>287,257</u>	<u>61.45</u>	<u>51.01</u>	<u>-99,851</u>	<u>-25.79</u>
Public and Military Areas					
public	1,342	0.23	0.36	- 1,366	-50.4
military	7,219	1.56	1.96	- 311	- 4.10
	<u>467,534 ac</u>	<u>100.00</u>	<u>100.00 (367,863 ac)</u>		

*Excluding 99,671 acres of extensive agricultural areas, and recreation areas which are considered to be not readily developable because of average slope exceeding 26 percent.

Fig. 16

industry and the methods of arriving at the figures. It anticipates an increase in industrial employment of 115% and in industrial land of 150% in the Bay Area by 1975.

The report estimates that Contra Costa County will have 46 square miles (30,000 acres) of industrial land by 2020. This is an increase of 18,000 acres of 20 square miles over the 1960 figures: 4,000 acres to west Contra Costa; 6,000 acres to central Contra Costa; and 8,000 acres to eastern Contra Costa County. However, modification is made by qualifying the holding capacity of western and central Contra Costa County in that they are only considered capable of taking an additional 3,000 acres each. This leaves 12,000 acres of industrial development to be absorbed by eastern Contra Costa County. The 1960 figures of industrial area in the eastern county were given as 1,500 acres.

It is inferred from the investigations made by the multi-discipline team that this 1965 report was used to discourage diversion of water from the San Joaquin and Sacramento Rivers. The 1963 report's concepts and figures are, however, generally being followed.

c. Preliminary Regional Plan for the San Francisco Bay Area was prepared by the Association of Bay Area Governments and published in November, 1966. The purpose of this report was to provide a foundation for review, discussion, public hearings, and other input necessary to establish policy and regional goals. It presented three different concepts for regional development: the city center; urban corridor; and suburban dispersion. The report also discussed the merits and faults of each concept. Four other major topics of discussion were: Open Space, Bay Shoreline, Transportation, and Refuse Disposal.

d. Regional Plan 1970:1990, San Francisco Bay Region was approved by the General Assembly of the Association of Bay Area

Governments on July 30, 1970. This is the most recently adopted plan and is the result of modifications made to the Preliminary Plan, discussed above in Section c, with the city-centered concept being selected as the pattern for regional development.

This plan is dealt with here in some detail because it is a regionally recognized plan which will set the pattern for transportation systems, pollution control, and much Federal funding; and because the goals for eastern Contra Costa County should reflect the goals of the region.

Regional goals are outlined in the report as follows:

"In September 1968, planning goals were adopted by the Association's General Assembly. They provide one part of the foundation for the 1970:1990 Regional Plan. The goals are:

1. To protect and enhance San Francisco Bay and the major physical features and environmental qualities of the region.
2. To provide the opportunity for all persons in the Bay Area to obtain adequate shelter convenient to other activities and facilities, in neighborhoods that are satisfying to them.
3. To designate ample land and facilities for the economic growth of the region in order to provide opportunities for all citizens and communities to improve their economic wellbeing.
4. To provide a transportation system that is integrated with a land use and consistent with the city-centered concept of regional development.
5. To provide a permanent regional open space system that makes possible the range of activities essential to the city-centered concept of regional development.
6. To create a sense of regional identity, responsibility, and cooperation among citizens, organizations and governments in the Bay Area."

The Pittsburgh-Antioch area is indicated as a major community center in the report.

The broad quantitative and qualitative objectives of the concept of the city-centered region are quoted from the report as follows:

- "1. Identifiable concentrations of urban development around community centers.
2. Extensive open space and conserved areas.
3. Improved environmental quality.
4. A Multiple-mode transportation system.
5. An operational regional organization.
6. Strong intergovernmental cooperation, coordination and citizen participation."

Some of these objectives are elaborated below because they are particularly pertinent to our study area.

1. Growth of employment within the inner core of existing communities should be given high priority since it is a major factor in achieving balance in community development, minimizing excessive home to work travel, and guiding the regional patterns of jobs to people distribution.
2. Each community would center around a core of intense activity where commercial, governmental, cultural, recreational, health and educational services are provided.
3. The transportation system is designed to shape and serve a region of multiple communities situated in corridors of growth, connecting community centers and providing capacity in and between growth corridors.
4. Regional urban development should be guided by coordinated local, regional, state and federal policies concerned with

urban and industrial growth and open space.

5. Transportation, utility, and open space systems should be planned in support of this growth policy.

The study area is identified as being one of the present high growth areas and if the present trend continues, without regulation of distribution, 50% of the population increase in the Bay Area will be around this and other high growth areas identified in the report.

Additional suppositions in the report pertinent to this study are as follows:

1. New technological industries are expected to contribute to growth around the Pittsburg-Antioch area.
2. Eastern Contra Costa County should be included in the permanent open space system because the soils are suitable for prime agriculture.
3. Major flood plains and drainage channels should be included as open space in an effort to eliminate flood control programs.

e. The City of Pittsburg does not have an adopted master plan at this time so far as we could determine. However, one is being developed.

f. There is no land use plan for the City of Antioch as far as we were able to determine nor did we find any indication that one was being prepared. On May 14, 1956, a zoning map was adopted as a part of Section 3.2 of Ordinance No. 376 A.

2. Implementation Plans

There are four urban renewal projects planned for Pittsburg. Urban Renewal Project No. 1, Riverside Mall, is basically for the revitalization of the central business district. The remaining projects are aimed basically at rehabilitating residential areas and the details are discussed in Section III-D.

3. Existing Land Use

Existing land use is shown in general terms on Figure 17. Development of the study area is confined by the rivers on the north and the mountains on the south to a strip about 1 to 3 miles wide. East and southeast of Antioch there is extensive flat area now being used for agriculture. Two railroad lines and a freeway run approximately parallel through the study area.

a. Pittsburg

(1) The residential land uses are described under the section on Housing and Its Land Uses.

(2) Commercial area is located in the older part of town near the river. It has deteriorated but there are plans for redevelopment which were discussed previously.

(3) Public areas like civic center, parks, schools, hospitals are identified in Figure 17.

(4) There are industrial areas within the city limits. Industry will be discussed in more detail later in this section.

b. Antioch

(1) The residential land uses are described under the section on Housing and Its Land Uses.

(2) The commercial areas are spread throughout the city with neighborhood and community shopping centers. The central business district which is not easily identifiable as such, lies in the north-central part of town.

(3) Public areas consist of 11 schools, 3 hospitals, city hall, eight parks, fairgrounds and other areas identified in some detail on the map and in other sections of the report.

(4) There is minimal industrial land use within the city.



c. Unincorporated areas

(1) Residential areas are generally within one of the cities with the exception of El Pueblo, a low income, minority housing area, which is completely surrounded by Pittsburg.

(2) Most of the industries are along the river or somewhere north of Route 4, except for the oil tank farm. Practically all the industrial areas are excluded from the cities' jurisdiction. However, there is extensive intrusion of industrial land into the residential areas.

Both cities have very irregular city limits; lines which meander in such a way as to get around the industries but pick up residential and service facilities. There is no major shopping area to serve both communities at this time and it is unlikely that even in the future the population will be large enough to support a regional center. Therefore, it can be assumed that major purchases will be made at the regional center in Concord.

There were no identifiable medical, professional, or business areas. In fact, there doesn't seem to be much formal organization to growth and an undesirable mixture of land uses.

Most of the people who live in the area are employed there now. There appears to be adequate vacant land within the study area to expand all the land uses appropriated to a self-sufficient community center.

4. Proposed Plans Now Being Developed

Copies of all the land use plans or parts of them that were available to us have been reviewed below to give the reader a view of present thinking.

a. The Land Use and Transportation Plan for Contra Costa County now being prepared will take approximately 2-1/2 more years to complete, but two completed elements are summarized below:

(1) The Recreation Element of the General Plan for Contra Costa County was adopted by the Contra Costa County Board of Supervisors on December 8, 1970. Two functions of this plan are "1) to provide adequate planning for the recreational lands and facilities necessary to fit the needs and desires of the citizens of the community and 2) to integrate these plans with other elements of the general plans to insure the best over-all design for the community."

Two parts of this report are the Major Parks Plan and the Local Parks Plan. The existing major parks in 1970 and their facilities are summarized below:

- (a) Contra Loma Park, 772 acres, is part of the East Bay Regional Park District. It is located south of Antioch at the Contra Loma Reservoir and offers boating and swimming.
- (b) Frank's Tract, 3,400 acres, is a State Park and is almost entirely an open water area. It is oriented to fishing and boating.
- (c) Stoneman Rifle Range Park is a City of Pittsburg Park, having 300 acres of level land. Present activities are limited, but it is suitable for hiking and horseback riding. A golf course is planned.

Two additional major parks are proposed; Coal Mines Park, a large area, southwest of the existing Contra Loma Park; and Marsh-Kellog Park located at the reservoir and offering a marina and picnic facilities. Funds are not available in the near future for the acquisition of the Marsh-Kellog Park area.

Small local parks are not considered as a part of the land use plan, but rather are discussed under Recreation.

b. Inventory for the Conservation Element, Environmental Analysis, dated August 1971, is an analysis of the environment and physical landscape of all of Contra Costa County. This review will concentrate on the eastern section of the county. It appears to be a very good inventory of all the material currently available and identifies areas where additional study is required. Comments on the major problems follow:

(1) Soil erosion and agricultural land

(a) Concern is expressed about soil erosion caused by development in the hill areas of the county. In addition to the loss of vegetation, the soil which is carried into the streams and down into the valleys presents potential flood problems elsewhere.

(b) The last agricultural areas with Class I soils are in eastern Contra Costa County. Most of the agricultural areas in western and central Contra Costa County are either already developed or are rapidly developing into urban areas.

Two threats to the agricultural portions of the eastern county are residential development and salt water intrusion from the waters of Suisun Bay.

(2) Environmental hazards discussed are land slides, earthquake fault zones, bog and marsh soils, flood plains and fire. Maps showing topography-hydrology, slopes, geology, soils, vegetation, and rainfall are included. Earthquake fault zones, flood plains and areas of steep slopes have been composited onto one map (Figure 18) which indicates the amount of land suitable for economic development. Tidal marshes have been filled extensively in the past and concern is expressed over the impact on the ecological balance of the Bay if this is to continue. The soil in the Diablo Range acts as an aquifer for the water in the wells in



Figure 18

the eastern county. The clay soils in the Pittsburg-Antioch plain are not suitable for septic tank filter fields. Other soils do have the capacity to act as aquifers and provide a reasonably high quality of water, but the potential is there for contamination without a suitable sewer system.

c. The Circulation Element of the General Plan for City of Pittsburg, was prepared by Hahn, Wise and Associates, Inc. and is dated July 1971. This report does an inventory of local city streets and highways, giving the descriptions, conditions, traffic flow, accidents and traffic controls. It proposes standards for different types of streets and lays out a circulation plan based on a proposed 1990 land use plan, with estimated traffic volumes which were prepared in 1968.

The projected population for the Pittsburg planning area is approximately 35,000 people in 1980 and 40,000 in 1990.

The land use plan shows extensive heavy industrial areas with some light industrial interspersed with residential and commercial usage.

The report does not comment on the need for or the economic feasibility of a transit system. It does suggest that if BART is extended into the study area, it would be preferable if it were in the Route 4 transportation corridor. It proposes a site in the vicinity of Railroad Avenue for a station and suggests that auto-shuttle and shuttle bus be provided to serve the transit station during commute hours and other areas of the City during off-peak.

d. Preservation of Prime Agricultural Land in Eastern Contra Costa County, dated January 1972, was prepared by the Land Conservation Committee. The report states that its purpose "is to alert the Board

of Supervisors to a rapidly developing situation in the eastern County which will result in the loss of the County's prime agricultural land and create a haphazard pattern of development unless the County selects a goal for the area and adopts the necessary policies to achieve this goal."

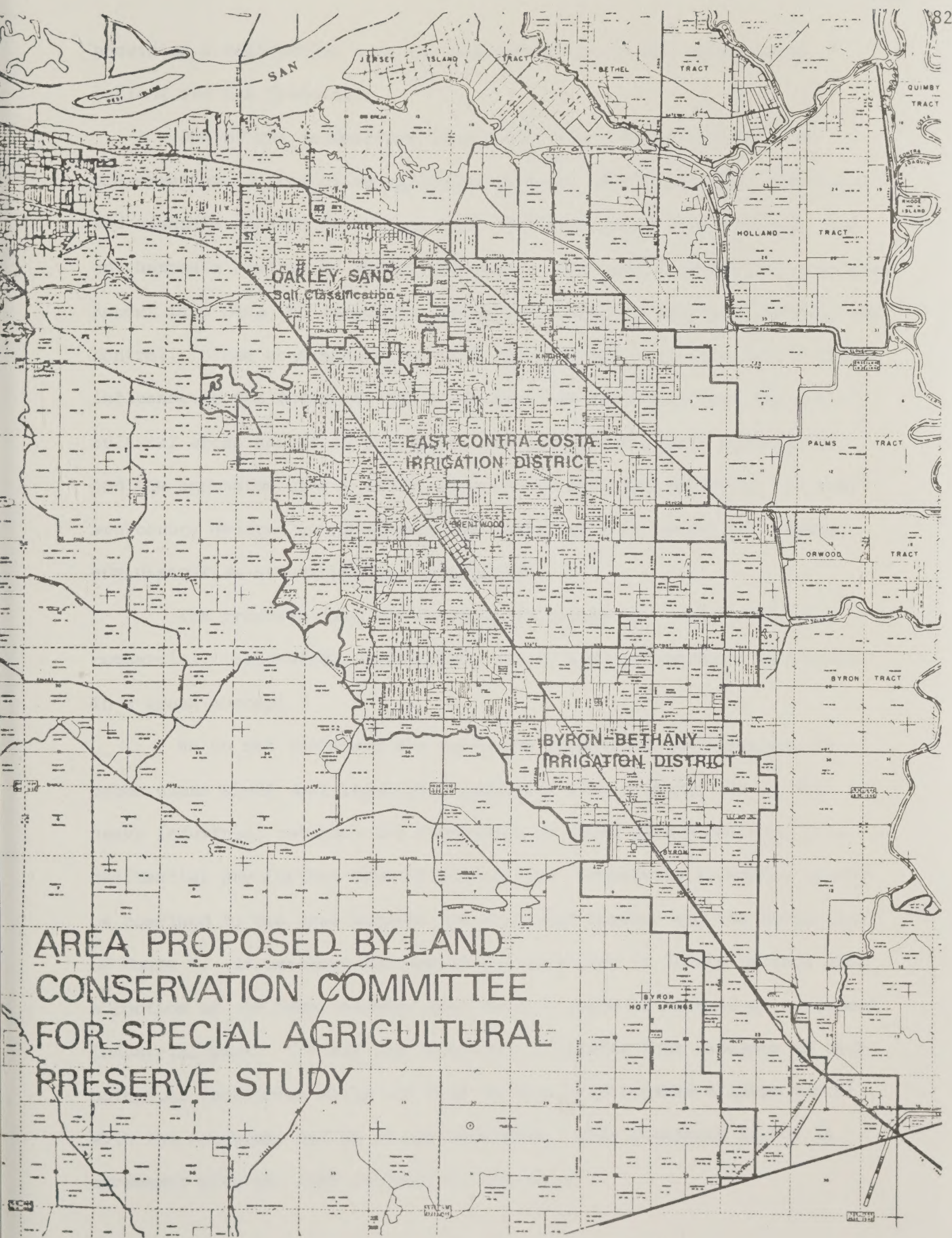
The area under discussion in this report is shown on Figure 19. It includes all the area outside of Pittsburg-Antioch, which is economically suitable for future development. This is 32,000 acres of prime agricultural land.

The multidisciplinary group recommends that steps be taken to preserve a portion of the eastern county as permanent agricultural land; that only selected portions be placed into agricultural preserve; and that affirmative land use controls be adopted.

5. Future Land Use Recommendations

The approach now being taken in the land use and transportation study by the Contra Costa County Planning Department staff appears to be more realistic and sophisticated than the previous two County land use and circulation plans. The ABAG plan was certainly a major step in this direction.

The 1963 plan for the entire county was the traditional document. Its objectives for the county were predicted on continuing high growth rates. The 1963 plan, however, did advocate preservation of the agricultural areas. The 1965 plan for Eastern Contra Costa County swelled the industrial development tremendously and assumed an increase in population which would be employed either directly or indirectly by this industry. The issue of whether this land would be more valuable to the region as agricultural or as industrial land was not discussed. Neither plan dealt with eastern Contra Costa County as a bedroom community,



AREA PROPOSED BY LAND
CONSERVATION COMMITTEE
FOR SPECIAL AGRICULTURAL
PRESERVE STUDY

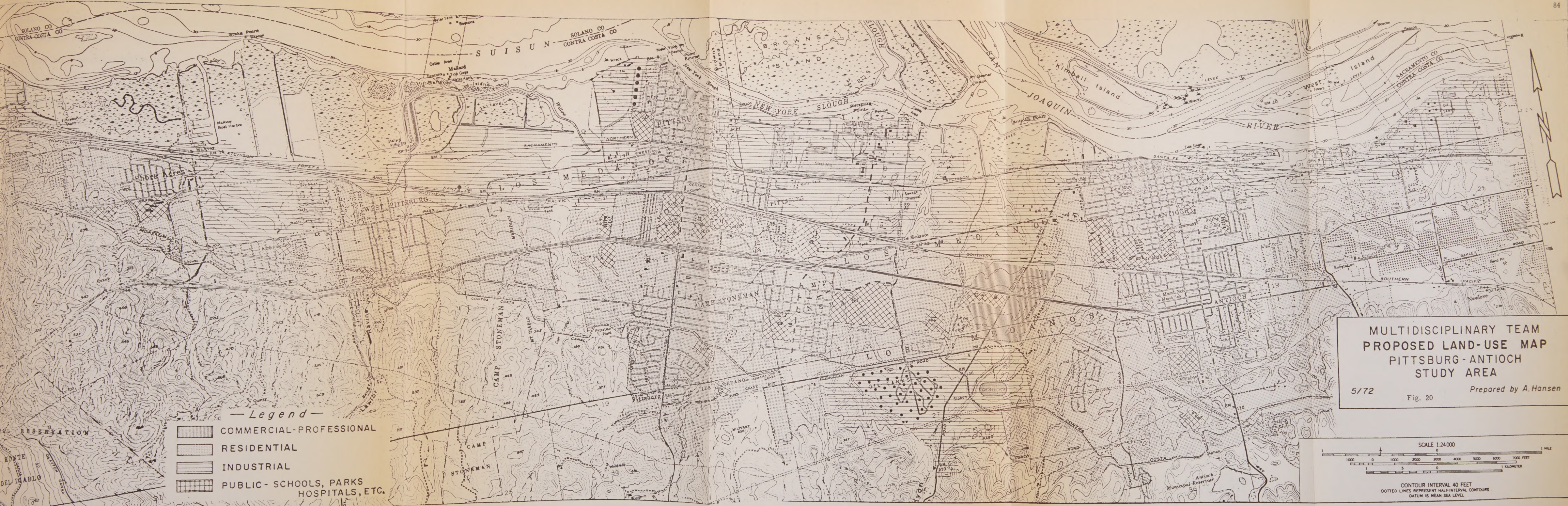
Fig. 19

providing a residential area for people working in the urban areas of Oakland and San Francisco.

One of the assumptions in the 1963 plan, "that the need for preservation of productive agricultural lands will be firmly established and adequate measure to achieve such preservation will be adopted," has not become a reality in almost ten years. The Land Conservation Committee Report is a plea for immediate, effective action in land use planning and control. Since what happens to this agricultural land will have a strong influence on the future of the study area, we recommend that the agricultural areas should be preserved, the pattern of growth controlled, and the expansion of the major, fixed transportation system in the eastern county delayed until appropriate legislation is passed and planned administrative structures are established.

The proposed land use is shown in Figure 20. Only major uses -- commercial, residential, industrial, public and open space -- are shown in a broad concept.

We do not recommend the extensive industrial uses proposed by other plans since most industrial expansion will probably fit in the heavy industrial category and should not be mixed with commercial and residential any further than it already is. Industrial expansion should be confined to the area between the water and marshes and the north side of Route 4. If research industries should choose to locate in this area a portion of old Camp Stoneman near Route 4 could be rezoned as a planned industrial park. (It was the consensus of opinion that research or technological industries would not move to this area because a labor market with the necessary skills is not available. This consensus is not in agreement with the ABAG projection, however.)



- Legend —
- COMMERCIAL-PROFESSIONAL
 - RESIDENTIAL
 - INDUSTRIAL
 - PUBLIC - SCHOOLS, PARKS, HOSPITALS, ETC.

MULTIDISCIPLINARY TEAM
PROPOSED LAND-USE MAP
PITTSBURG-ANTIOCH
STUDY AREA

5/72 Fig. 20 Prepared by A. Hansen

SCALE 1:24,000

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 2 3 4 5 6 7 8 9 10 KILOMETER

CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT HALF-INTERVAL CONTOURS
DATUM IS MEAN SEA LEVEL

Due to the relatively low land costs, most residential areas will be single family, low density (8 dwelling units/acre). The exception to this may be the redevelopment areas of Pittsburg.

The city-centered concept of the ABAG plan should be incorporated in future land use plans and the study area should be reasonably self-sufficient with appropriate open space. Joint use services should be located to optimize their effectiveness.

There are alternatives for transportation planning and commercial-professional development that the communities of Pittsburg and Antioch may have to select together in the future. These are the location of the BART extension, its station or stations, and the adjacent development. The choice will have a major impact on adjacent land use.

Two possible alternatives are:

1. Extension of BART along the railroad right of way with stations near each existing CBD. This would reinforce each central business district and encourage a surrounding medium density residential area.
2. Extension of BART in the Route 4 transportation corridor with either one or two stations. The one station concept placed the station near Sommersville Road with development of commercial and medical-professional serving both communities, and the surrounding medium density residential areas.

These decisions are not imminent and should be made when necessary through the community participation process.

III-D Housing and Its Land Use

1. The Urban Area

The cities of Pittsburg and Antioch are only about three miles apart in the geographic sense but tend to be miles apart in some other

pertinent comparisons. The combined areas of these two cities contain 15,575 housing units that shelter 48,711 people. Of this number of households, roughly one in five is headed by a person aged 65 or older according to the 1970 census. From an analysis of the population one will note that 15,200 persons, or roughly one in three, is employed. Of the total population 11,260, or roughly 18.2% of the population, is receiving some form of public assistance. Within the total combined population of the two cities 22%, or roughly one person in five, earns \$5000 or less, thus qualifying as being in the low income classification. The vacancy rates for the two cities are less than 3%. Many economists claim that 5% to 7% vacancies denote a healthy housing market, vacancy rates less than that amount tend to inhibit the characteristic called "filtering" in the housing market. Filtering is a term given the theory that a housing unit goes through a gradual decline, which makes it available to successively lower income groups until it becomes unlivable and is replaced. Market forces tend to keep supply at a level closely matching demand. When a deficit in any income class appears, and housing construction does not satisfy that deficit, the filtration process stops.

2. Antioch

According to the 1970 census, Antioch's population is 98% white (including Mexican-Americans) and 2% all other minorities. Based on the city's population of 28,060, 11.85% of the residents require some form of public assistance. Of the 8,855 housing units in Antioch, 231 are now being leased by the Antioch Housing Authority. The Housing Authority also owns 36 units outright and is planning on constructing another 60 housing units exclusively for the elderly. As of April 1972 there were 386 applications in their files requesting public housing assistance. It seems that there is a definite and unmet need in this respect. There are approximately

800 housing starts annually in Antioch. The median rent paid for housing in the city (cash only) is in the range of \$100-\$200 per month. The vacancy rate for Antioch is 2.20% and this represents a very tight situation in terms of locating housing. In cases such as this, unsuitable housing remains as part of the housing market much longer than is healthy for the city. When this happens, entire areas of a city can become unsuitable for a decent living environment and eventually are designated as slums. Antioch is a low density city where 79.9% of the housing stock is in the form of single family detached dwelling units. The median value for the housing stock is in the range of \$20,000 to \$25,000 for the owner-occupied units.

Antioch has been experiencing very rapid development for the last decade. Its population has increased by 10,755 persons since the 1960 census. This represents a growth rate of 48.34%. If this growth rate remains unchecked the city will experience a doubling of its population every 14 years. What is truly phenomenal when these numbers are considered is that Antioch has no current plan to accommodate this new development in a manner that would assure its residents a suitable living environment, and efficient use of the public monies in terms of city infrastructure.

Without some general plan, especially in a city growing this rapidly, there is no way of knowing if the policies of the city will provide the necessary infrastructure that will be required by proposed and future development, at a time which will be most economical for the residents of the city. The intrinsic policy of the city manifest in its development during the past decade has been one of rapid, low density physical expansion. One characteristic of this type of urban expansion is that it tends to be very expensive for the city in terms of municipal services. It is, however, one way of subsidizing urban sprawl by requiring the residents of

the city to foot the bill for extending municipal services to areas that may well be highly uneconomical to service. One example of this phenomenon was recently proven by a Bay Area planning consultant for the city of Palo Alto: a detailed economic study of a proposed hillside subdivision found that it would be less expensive in real dollar terms for the city to purchase the land and leave it in permanent open space than to allow the land to be developed. The development required the physical infrastructure such as schools and utilities to be extended by the city to support it. The farther away from the existing physical plant services that new development is permitted to occur the more expensive it will be to service in terms of police and fire protection, adequate sewer and water lines, schools, libraries, and street maintenance.

Physical mobility can be correlated to economic well being, which in turn can be grossly affected by the property tax structure required in order to pay for a city's services. There has been no apparent desire for federally aided urban renewal within the limits of the city in the past or at present. There is no known means of intercity public transit in Antioch. Considering that a portion of the city's population does not own an automobile, this seems to be an unmet need in terms of mobility within the city. Without use of an automobile a person is totally dependent upon some other form of mobility. Usually this takes the form of a public transit system, or taxicab. Taxi service is convenient but it tends to extract a relatively high price in dollar terms for this relative convenience. It is also economically oppressive to the people who happen to live at a lower economic level. This problem is more fully explored in Section G which concerns Transportation.

In Antioch there seems to be no really concentrated central business district, nor is there any apparent desire to create one. A shopping center

tends to make an unusual city center, not only in a visual sense, but also in a service facility sense. With this fact in mind, it is easier to understand a part of the problem that is presented in looking for a logical terminal for some form of intercity public transit. This much is apparent: that if BART or some other intercity form of public transit were to locate a terminal in Antioch, it would have a profound effect on the future land use patterns on the land immediately surrounding this terminal. Such a terminal could even have the effect of causing the formation of a central business district in the city. The desire for such a community center has as yet not been identified by this team. In considering extension of BART, there seems to be a general feeling on the part of city officials and laymen alike that it ought to be extended not for any intrinsic good it might bring to the city, but rather that it should be extended because the city is paying a minute portion of costs for the facility (BART) via their taxes. The city officials do not define any particular need (even though this team has identified such a need by elementary examination of public data) for some form of public transit, nor is there any identifiable plan by the city to provide any form of transportation facility to its residents. Although the argument on taxation is partially valid the city ought to be prepared to supplement a public transit system with its own intercity system.

3. Pittsburg

The city of Pittsburg outwardly seems to be in the process of rebuilding the entire city. Due to the relative age of many of the city's buildings, especially in the central business district, as well as the sale by the military of the Camp Stoneman site, this rebuilding seems to be necessary. The development in terms of population growth in the city of Pittsburg has not paralleled that of Antioch. According to the census

data only 589 more people now live in Pittsburg than in 1960. This represents a growth rate of 8% and would take at that rate 86 years to double its population size; a radically different figure when compared to the doubling time in Antioch of 14 years. The City Planner for Pittsburg has stated that this slow rate is not unintentional on the part of the city government. The City Planner is now in process of supervising the preparation (by a planning consultant) of a comprehensive plan for the city. In this aspect of city growth policy the city shows promise of being capable of identifying needs of the city before they become critical. All that then remains is for these needs to be met or avoided through proper planning techniques. According to the 1970 census Pittsburg is 72% white (including Spanish surname) and 28% other minority groups. Based on this census data 25.56% of Pittsburg's population is receiving some form of public assistance, about one in every four residents. A large portion of the population does not own an automobile, and 10.6% of the residents are 65 or older. There is now a substantial area of the city within or designated for an urban renewal project. Basically, project number one (as shown in Figure 23) is a conventional urban renewal project for the revitalization of the central business district. The remaining projects, numbers 2,3, and 4, are NDP or Neighborhood Development Projects; a new situation in urban renewal in that they must be closed out and completed on an annual basis for funding and require the utmost accuracy in the implementation of any planning.

Figure 23 illustrates the plan for project number one. This has been named The Riverside Mall project by the city Housing and Redevelopment Authority. This project is an attempt to put vitality and shopping convenience back into the center city. If this attempt is successful there should be less need for long distance trips for convenience goods.



Fig. 21

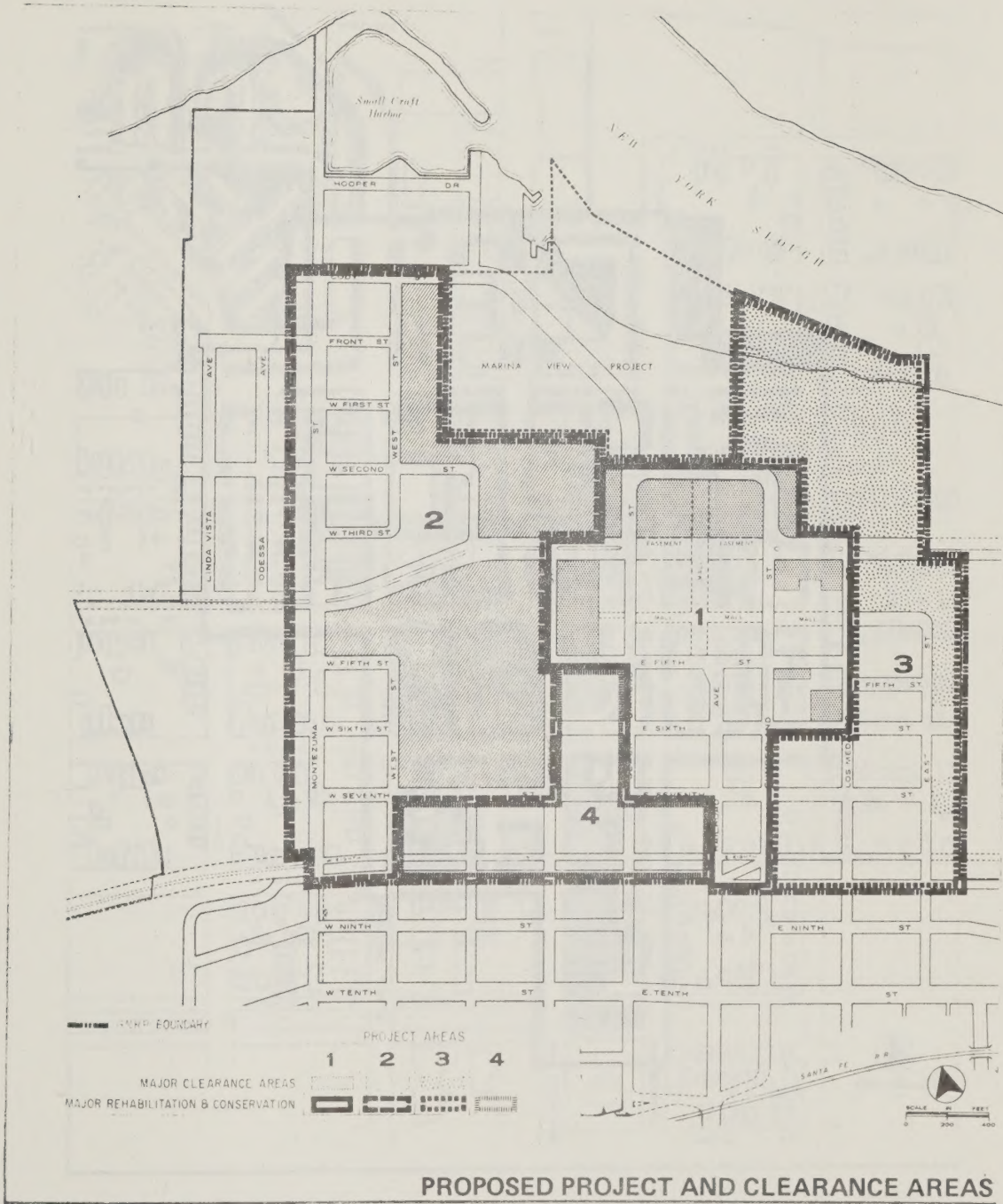


Fig. 22

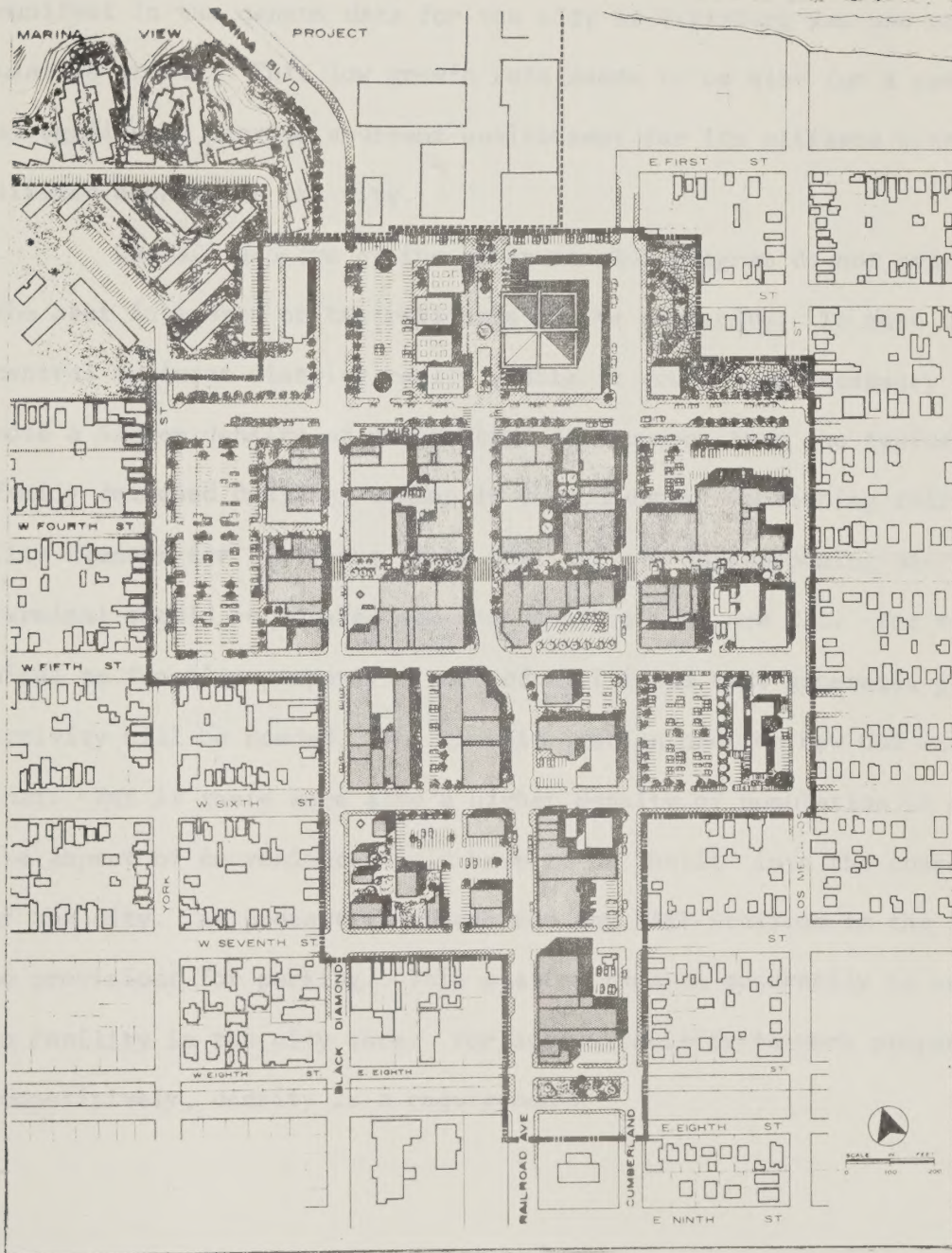


Fig. 23

A shopping area within walking distance of a substantial portion of the residents of a city is always desirable. One of the intrinsic policies manifest in the census data for the city of Pittsburgh was one of low population growth. This low growth rate seems to be wise for a community struggling to provide a decent environment for its citizens with the very limited economy of the city.

Certain aspects of the urban renewal program do not complement the best interests of the residents of the core city. To make the new central business district really viable it would seem necessary to promote a higher density of residential development than the typical single family detached dwelling common in the suburbs. Concerning this, the City Planner for Pittsburgh feels that any new (presupposing BART) transit terminal should be located somewhat south of the new CBD. For this terminal to function properly a node of activities that generates people and activity will be needed. The transit station and the new CBD would do that. But if there were also a higher density of population in this area the aspect of convenience would have to be "built" into the infrastructure of the city. At present the plans for any BART stations in the area show no provisions for parking. This station then is apparently to be a walk-in facility in the city core. For such a facility to work properly and competitively, density is a requirement.

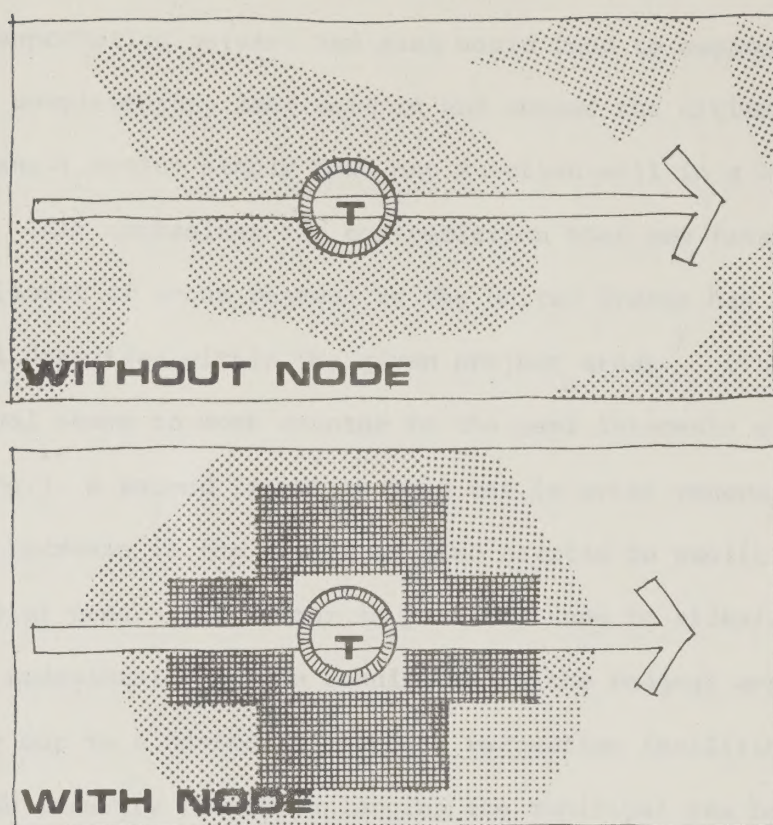


Fig. 24

The above Figure 24 shows schematically what is meant by a "node" of activity around the proposed transit terminal. Without this density, as is shown, the facility will be weakened considerably in its basic purpose, which is to be convenient and available to the majority of the people. The city of Pittsburg did have (as of fall 1971) a municipal bus that provided at least the very minimum of intracity mobility for those who could not use an automobile. It seems that if the cities of Pittsburg and Antioch were to pool their efforts there could be a secondary transit system (intracity) within the greater urbanized area of these municipalities. Such a system might be situated in order to complement and reinforce the business, industrial, and residential land uses within and around these two

cities. Any major transit stations linking these cities with the San Francisco-Oakland Metropolitan Area would again reinforce both the secondary transportation network and also would tend to support the consolidation of complementary land used in and around the cities. A metropolitan transit system simply does not function well in a low density situation. This emphasizes the contradiction that now faces Pittsburg. The major impact of urban renewal in the United States has been to lower residential densities within the given project areas.⁷ (This aspect of urban renewal seems to work counter to the best interests of the city of Pittsburg.) A second impact on land use in urban renewal is to cause a definite increase in the amount of land devoted to public, commercial, and industrial uses. The former is probably done to alleviate overcrowded (therefore undesirable) living conditions in the renewal area. The latter is probably due to a desire to increase recreation facilities and to attract commerce and industry thereby enlarging the municipal tax base.

Urban renewal projects tend to substantially change the land use character of the areas where they are located. This change can either better the characteristic of mobility, or work against it. Since urban renewal projects tend to be mainly in older sections of cities, and these sections tend to be in the center of such cities, the effect seems to be to accelerate rather than retard the decentralization of the residential population. The City of Pittsburg fits this analysis. Throughout the United States urban renewal project areas are more and more becoming places to work rather than places to live.⁷

Pittsburg now appears to be attempting to rebuild the basic infrastructure of the core city in an effort to provide a better living environment

⁷For details of this phenomenon see: "The Impact of Urban Renewal on Land Use," Edward F. R. Hearle and John H. Niedercorn, June, 1964, The Rand Corporation, Santa Monica, California.

for its citizens. Presently some of these efforts are being hampered by bureaucratic bookkeeping necessities that do not appear to function for the betterment of the affected citizens. One case in point is the El Pueblo public housing project. This group of dwellings, although completely surrounded by the incorporated city of Pittsburg, is not within the jurisdiction or control of the city. Due to residency requirements, this project is restricted to the poor and underprivileged, who in Pittsburg are Black. In this respect, it is a ghetto. More important, however, is the fact that Pittsburg won't annex the area, primarily because it wouldn't contribute to the city tax base. This situation is not in the best interests of the residents of the project.

Another problem having to do with the municipal limits of the city is the vast industrial areas surrounding the city. These areas are pointed at with pride in all the literature produced by the County Development Commission and the Pittsburg Chamber of Commerce. This is ironical: Pittsburg calls itself "the industrial city," but most of the industry alluded to is not within the corporate limits of the city! By not being within these corporate limits the industries do not answer to, nor do they support the infrastructure required, nor the facilities demanded of the city. The first and foremost need of the city of Pittsburg appears to be the extension of its municipal limits to an extent that all potentially developable land surrounding the city, and all existing or proposed development be included within these new municipal limits. Extension of the municipal limits of the city of Pittsburg (and also those of Antioch) would give the control necessary for these cities to guide the formulation of their eventual urban form, one of the fundamental goals adopted by the Congress of the United States in the housing act of 1949, and again reaffirmed in 1968.

Reinforcing the central business district seems to be a necessity that would also be supportive of the public facilities that will be constructed in the area, i.e., schools, parks, shops, roads. A junior college planned east of the old Camp Stoneman site would provide another activity generator which might compete with the CBD for commercial activities unless there is a convenient means of mobility between the respective sites, and adequate planning controls.

All things considered, the city of Pittsburg appears to be moving toward a profound change in the existing way of life of its residents. In summary of the above housing and land use considerations, it appears that an adequate intercity transportation system between Pittsburg and Antioch, supported by some form of inter-metropolitan transit could have a profound effect upon the future development pattern and resultant urban form of these two cities. For more information on this aspect of the Study Area, refer to Section III-G, Transportation.

III-E Economic Factors

1. General Considerations

Historically, the economy of the Pittsburg-Antioch Study Area has been primarily industrial. Developing 50 to 60 years ago, the industries were attracted by natural resources and transportation facilities. Fishing, coalmining, and later wood product manufacturing were several of the first industries. Of these, only the manufacture of wood products still survives.

Today, the cities of Pittsburg and Antioch are dominated by basic industrial and manufacturing plants, many owned and operated by some of the largest corporations in this country. Concentrated along the waterfront from Martinez to just beyond Antioch, the oil, chemical and steel industries have attracted other related manufacturers and services,

accounting for over one-half of the employment in the area. Pittsburg has one of the highest industrial concentrations for a community its size in the country, comprising 29 manufacturing and distribution plants. Major employers are U. S. Steel, Dow Chemical Co., Johns-Manville Products and Shell Oil Co. Antioch, on the other hand, is a major canning center, the home of Western California Cannery, Inc., and several other food product canners. Other major employers include Fibreboard Paper Products, Crown Zellerbach Corp., E. I. du Pont de Nemours and Glass Container Corporation. Within the study area, manufacturing accounts for almost fifty percent of the resident work force. Figure 25 illustrates the comparison of people employed in manufacturing with other types of industry.

Contrasting this industrial wealth is the physical appearance of the two communities and the general welfare of their citizens. Pittsburg's central business district is dominated by very old buildings, nearly all in a rundown state. Many of the older residential areas in the study area are in need of repair -- some even uninhabitable. Vacant buildings, debris-strewn alleys and empty lots, and many other signs of poverty are very much in evidence. County welfare statistics, as shown in Section II-C, indicate that the study area has the higher ratio of persons receiving public assistance than all other subareas of the county. From these observations, it is apparent that the majority of residents are not benefiting from the concentration of wealth reflected in the nearby industrial complex. An explanation of this contrast is the fact that nearly all of the major industrial and manufacturing plants are located outside the Pittsburg and Antioch city limits, and therefore do not contribute to the community tax base.

At present, building construction is the second strongest element of the economy in this area, with a total market for new single family

Summary by Major Industry Group

	<u>Establishments</u>		<u>Employed Personnel</u>	
	<u>Total</u>	<u>%</u>	<u>Total</u>	<u>%</u>
	<u>1,245</u>	<u>100.00</u>	<u>17,170</u>	<u>100.00</u>
Agriculture	22	1.77	86	.5
Mineral Extraction	1	0.08	17	.09
Construction	42	3.37	233	1.36
Manufacturing	69	5.54	8,328	48.50
Transportation/Communication/Utilities	60	4.82	1,284	7.48
Wholesale Trade	32	2.57	326	1.90
Retail Trade	467	37.51	2,573	14.99
Finance/Insurance/Real Estate	78	6.26	393	2.29
Services	316	25.38	1,607	9.36
Government and Public Education	59	4.74	2,224	12.95
Non-Classifiable Establishments	99	7.96	99	.58
		100%		100%

Figure 25

1970 Employment Inventory for the Pittsburgh/Antioch Area Including Port Chicago, West Pittsburgh

residences leading all other areas of the county. Because of lower land acquisition and development costs, it is expected that residential construction will continue at a boom pace for several years unless other forces, such as environmental and political, interrupt the unrestrained subdividing and development of suitable surrounding areas. The 1970 Census Employment Inventory implies that construction is not a local source of employment, as just over one percent of the Pittsburg-Antioch work force is thus employed.

The following 1971 building statistics reflect the growth in building construction:

	<u>Antioch</u>	<u>Pittsburg</u>
Single Dwelling	\$12,901,241	\$5,040,220
Multiple Dwelling	3,087,269	3,425,639
Business	418,740	380,024
Other	547,020	9,288,345
Repairs, Additions	405,171	405,001
1971 Total	17,359,411	18,539,229
1970 Total	6,691,588	4,838,490
% Increase	125	283

Source: Contra Costa County Economic Development Association.

Figure 26

Compared with national percentages, the percentage of trade and service industries in the study area is minimal (see Figure 25). This has resulted in an imbalance of the normal distribution of skills and professions for the population, resulting in a labor market composed primarily of skilled and unskilled industrial and construction workers. Many retail outlets

including chain stores, that are found in communities of the size of Pittsburg have left the area because of the deteriorated conditions of the central business district.

The Pittsburg Model Cities First Year Comprehensive Plan describes Pittsburg's economy as stagnant, emphasizing that "24 businesses have closed down in the past year. The estimated job loss from these actions amounted to \$600,000. Despite the availability of good industrial land on three sides of the Model Neighborhood Area (MNA), and the advantages of excellent commercial transportation and low taxes, companies have not chosen to open new businesses here. Some of the reasons given for the stagnant economy are the high crime rate, vandalism, difficulty in obtaining insurance, high interest rates, and outright refusal of loan institutions to extend credit in the MNA. Several county organizations, including the Chamber of Commerce, have conducted campaigns to attract new industry to the area, but to no avail."

The major regional shopping center for the area is in Concord, a one way distance of 12 to 15 miles for most shoppers. This lack of a normal level of commercial, service, and professional activity further aggravates the high unemployment in the area and frustrates attempts to train or retrain and employ the able bodied unemployed as well as the young just entering the employment market.

The effective buying income and cash breakdown of households (1970 estimates) is shown for the two communities and contrasted with totals for Contra Costa County in Figure 27:

	Effective Buying Income		Percent Households by Income Groups:				
	Net Dollars (000)	Per Household	\$0- 2,999	3,000- 4,999	5,000- 7,999	8,000- 9,999	10,000 & over
Antioch	95,387	10,839	14.2	7.7	16.4	20.2	41.4
Pittsburg	57,173	8,933	18.1	11.4	21.0	17.7	31.8
Contra Costa Co.	2,192,765	12,452	12.7	6.6	14.9	16.8	49.1

Figure 27

As indicated above, the two communities in terms of income per household, lower the county average. These two communities represent 8.7% of the Contra Costa County population.

2. Location of the Working Force

A survey of the location of the working force for the major employers of the area was conducted by De Leuw, Cather Company in conjunction with the Transportation Needs Study for Contra Costa County. The survey was conducted by telephoning the respective industries and requesting an opinion as to where their employees lived; therefore, the results are considered estimates only and are not statistically accurate. The results are indicated below:

Pittsburg

Continental Can Co., Inc.

Willow Pass Road, 160 people
Loveridge Road, 250 people
100% from Pittsburg area

Johns Manville Products Corp. (270 people)

20% from Pittsburg area
50% from Antioch area
20% from Concord-Martinez area
10% from other surrounding areas

Shell Chemical Co. (300 people)

15-20% from Pittsburg
65% from central County
15-20% from surrounding areas

Dow Chemical (725 people)

80% from Antioch and Pittsburg area
Others from Central County

U. S. Steel (3000 people)

75% from Pittsburg and Antioch area
Others from Central County

Antioch

Crown-Zellerbach (850 employees)

75% from Antioch area
+5% from Pittsburg area
15% from Brentwood area
5% from Concord area

Fibreboard Corp. (1200 people -- all plants)

50% at least from Pittsburg, Antioch area
Some from Oakley, Concord, etc.

(From another source: believe about 75% are local.)

Dupont (450 people)

40% in Concord-Walnut Creek area
60% Eastern County area

Western California Cannery (1100 people)

85% Pittsburg and Antioch area
10% Brentwood, etc.
5% other areas

Glass Containers Corp. (300 people)

80% Antioch-Pittsburg area
10% East
10% Concord area

Hickmott Canning Co. (250 people)

90% Antioch area
10% surrounding areas

Other

Shell Chemical Co., Martinez (250 people)

55-60% from Concord-Pleasant Hills-Walnut Creek
35% from Martinez
5-10% from Vallejo and Antioch

Shell, Martinez (1012 people)

Most employees from Concord/Martinez/Pleasant Hill
Some from Pittsburg, Vallejo, Napa

Phillips Petroleum, Avon (400 people)

45% Concord area
28% Martinez area
8% Pittsburg area
5% Antioch area
5% Walnut Creek area
4% Pleasant Hill area
5% Elsewhere

Naval Weapons Station, Concord (2100 people)

Most from Pittsburg-Antioch and Concord areas
Some from Vallejo, Richmond and other areas

Systron-Donner Corp., Concord (1311 people)

20% Pittsburg-Antioch area
Others local

Martinez Food Cannery, Martinez (450 people)

50% Martinez
25% Concord
25% Pittsburg

The results of the phone interviews indicate that a large majority of people employed by major employers in the Pittsburg-Antioch area live within the area. There is a much smaller, but significant number of people commuting between the Martinez-Concord Area and Pittsburg-Antioch; that is, people living in Martinez-Concord working in Pittsburg-Antioch area and vice-versa.

Very few people residing in the Pittsburg-Antioch area work in the Central or Eastern part of the County or beyond.

3. Job Opportunities

In spite of the very stable industrial base of the area, unemployment is a major problem due to a high concentration of unskilled workers residing in the area. Job opportunities primarily exist for the skilled with local industrial and manufacturing companies. In commercial businesses, service industries, and professional categories very few job opportunities exist. Clerical jobs for the female unemployed are very limited and most job seekers in this category must travel to the Concord area and beyond to find jobs. With the high rate of residential development in the area, it is anticipated that new shopping facilities, professional offices, service industries, and other commercial enterprises will be established and provide job opportunities for the unemployed unskilled and unemployed retrained workers.

4. Training Programs

The public school systems provide adult education programs in the area at the Shore Acres Shopping Center and at local high schools, with teachers being provided by the Mt. Diablo School District. Courses are also available to the public at the Diablo Valley College in Pleasant Hill; however, transportation to this school is often a problem for many of the unemployed.

The Contra Costa County Social Services Department, Vocational Services Division refers many welfare recipients to these schools for training and works closely with the schools to make available the necessary vocational training needed to help its clients secure jobs. The Vocational Services Division cannot work directly with private corporations in providing training programs. But the California State Employment Office of Human Resources Development, through its Work Incentive Program, funds cooperative programs with industry providing on the job training for the unskilled.

5. Transportation Needs

The lack of an adequate local public transportation system is a serious problem in the study area. The only means of transportation to most places of employment is by private automobile. To illustrate the seriousness of this problem, statistics included in Section III-G show that 8% of the households in Pittsburg-Antioch have no cars and 47% have only one car. In the Riverside Mall area (census tract 3090) of Pittsburg, 40% of the occupied households have no car. A County Social Services spokesman stated that the lack of adequate public transportation clearly was a major problem in terms of the unemployed finding employment and further commented that a car was almost a necessity for transportation after employment was found.

There is a local bus service operating on a single route in Pittsburg on an hourly frequency. The route includes several loops in the central business district and adjacent residential areas; and then runs south on Railroad Avenue to the Heights Shopping Center south of Highway 4 (the location of the County Social Services Department Office in Pittsburg). Antioch does not have a local bus service.

The De Leuw Cather survey referred to above also included a question to employers in the area asking whether there was a need for a public transportation system for their employees in commuting to and from work. The comments from employers were quite incomplete; however, those that did comment were negative in their response. At best, the feeling was that any public transportation system would have to have an extensive feeder system to benefit their employees. The conclusion of this reaction probably can be that regularly employed persons own cars for transportation, whereas the unemployed are not so fortunate and do not have a public transportation system as an alternative.

6. Recommendations

The task of correcting social and economic ills is often fully delegated to governmental agencies who sponsor publicly financed projects in the nature of urban renewal, job training, and make work programs. All of these efforts are needed in the study area and should be fully explored and exploited. Officials of local government are knowledgeable of such projects and are in a better position to judge which can and should be pursued; therefore, rather than catalog and recommend participation in these types of programs, we have tried to seek additional ways of attacking the basic problems of lack of job opportunities, unemployment and unfavorable business climate. The result of our considerations is that change can and must come from within the communities in the form of a bootstrap effort on the part of all the citizens, businesses, industry, community service and institutional organizations.

For example, jobs in retail, service, trade, and professional businesses are disappearing and new businesses have not been induced to locate in the area because of its unattractiveness, lack of insurance, financing and vandalism. We recommend the two communities organize and direct a clean-up, paint-up, fix-up campaign to improve the physical appearance of the central business, industrial and commercial districts of the area as well as residential areas. All local businesses, industry, community service and institutional organizations should actively support and encourage the participation of all citizens in this effort.

In keeping with this bootstrap approach, the communities should strongly campaign for all citizens to "buy Pittsburg-Antioch," or in other words to support as fully as possible local businesses. As businesses have left the area, local residents have turned to commercial and retail establishments located in neighboring communities and regional shopping

centers, resulting in a steady outflow of the resources of the communities. If the remaining businesses are actively supported, their level of activity should markedly increase and a more attractive business climate will result. In essence, this approach puts the profit incentive to work to overcome the present disadvantages. With an increased level of commercial activity, new jobs will be created and more income will be retained within the communities.

New retail, professional, trade, and service enterprises should be encouraged (through incentives) to locate in the redeveloping central business districts rather than in outer peripheral areas.

Every effort should be made to encourage the industries located outside the city limits of Pittsburg and Antioch to join these communities instead of remaining in their present tax sheltered havens. Industry's goals should include a strong community responsibility and interest as well as the profit goal.

III-F Recreational Opportunities

This section will describe the existing recreational opportunities within the municipal boundaries of both Antioch and Pittsburg. It will include the areas adjacent to the two cities and will describe proposed additions and changes to the existing facilities and programs. The public usage and public awareness of the existing parks and recreation facilities and activities will also be discussed. The accessibility of the facilities and programs by the residents of the two cities will be included along with general problems of mobility.

1. Public Development -- Pittsburg

a. Existing

The existing recreational facilities within the City of Pittsburg are somewhat limited as shown on the map of the Pittsburg area, Figure 28.

CITY OF PITTSBURG PARK & RECREATION FACILITIES

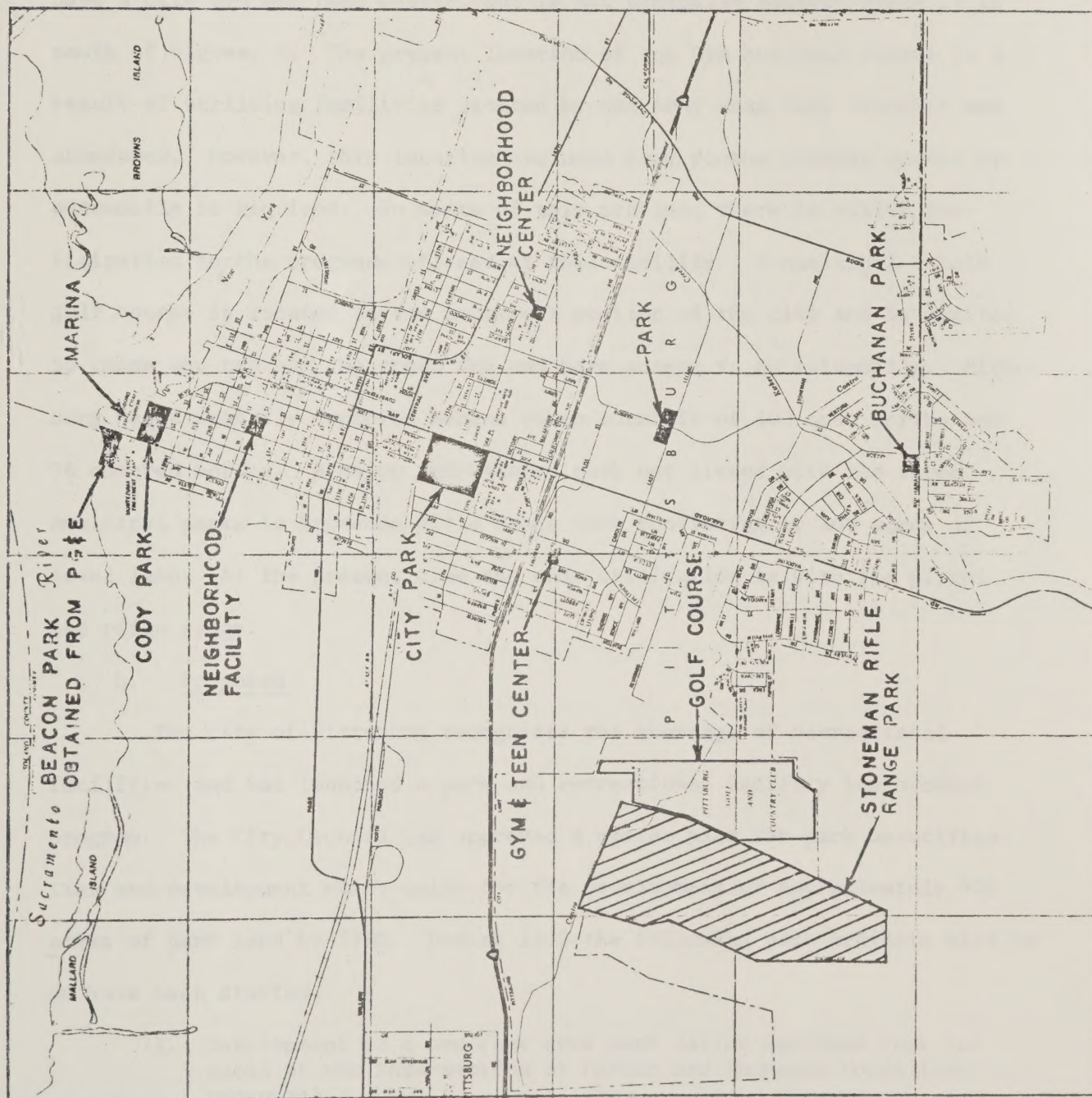


FIGURE 28

There are three city parks totaling approximately 45 acres, with City Park, an area of 25 acres, being the predominant facility. Access to the three parks is most often dependent on the use of an automobile. Pittsburg does have a City Gym and Teen Center, but is not centrally located since it is south of Highway 4. The present location of the Gym and Teen Center is a result of utilizing facilities vacated by the Army when Camp Stoneman was abandoned. However, this location excludes many youths because access by automobile is required. In spite of this problem, there is active participation in the programs offered at this facility. A municipal 9-hole golf course is located in the southwest portion of the city and is limited to those who can pay the green fee and have access to an automobile. Pittsburg has a recently improved marina which consists of 103 open berths and 96 covered berths. A major undeveloped park not listed with the three municipal parks is Stoneman Rifle Range Park consisting of 300 acres of level land. At the present time the only utilization is with the pistol and rifle range.

b. Proposed

The City of Pittsburg recognizes the shortage of recreational facilities and has launched a park and recreational facility improvement program. The City Council has approved a master plan for park beautification and development which calls for the development of approximately 400 acres of park land by 1980. During 1972 the following park projects will be or have been started.

1. Development of a new five acre park called Buchanan Park located at the intersection of Harbor and Buchanan Roads (now underway).
2. The development of approximately two acres of a park site located adjacent to the Fire Station No. 2 (now underway).

3. Improvements to the existing City Gym and Teen Center. The Teen Center has approximately 3,000 sq. ft. in a building adjacent to the City Gym and is to be remodeled.
4. The development of the 2-1/2 acre Beach Park located on the waterfront. The land was donated to the City by PG&E for a park and is to be constructed as a part of the Model Cities Marina View Project.
5. The development of four neighborhood centers within the areas under redevelopment by Model Cities Projects.
6. The development of a 18,300 sq. ft. Neighborhood Facility within the Model Cities Marina View Project. The primary function of the proposed facility is to draw the multitude of social welfare services together at one location. At the present time the community leaders indicate that there are not adequate facilities for carrying out programs of vocational counseling, basic adult education, legal aid, senior citizen programs, recreation activities, and many more services. The funds for the construction of this facility will come from HUD (\$400,000) and the City of Pittsburg (\$200,000).

The City of Pittsburg is budgeting funds for a continued development of its park system, but due to budget restraints a majority of the funds in the immediate future, it appears, will come from HUD under its Legacy of Parks Program. For example, to improve the Stoneman Rifle Range Park, Pittsburg has applied for a \$250,000 Legacy of Parks grant. This park, when developed with planned equestrian and hiking trails, nature walks, motorcycle and bicycle trails as well as general park facilities, could contribute to the regional park system. The proposed location of these parks is shown in Figure 28.

2. Public Development -- Antioch

a. Existing

The City of Antioch has had a progressive outlook toward recreational facilities in the past. This is illustrated by the number and diversity of existing facilities as shown on the Antioch area map, Figure 29.

There are eight city parks totaling more than 30 acres. Because of the dispersal of these parks throughout the city, all residences have an

CITY OF ANTIOCH PARK & RECREATION FACILITIES

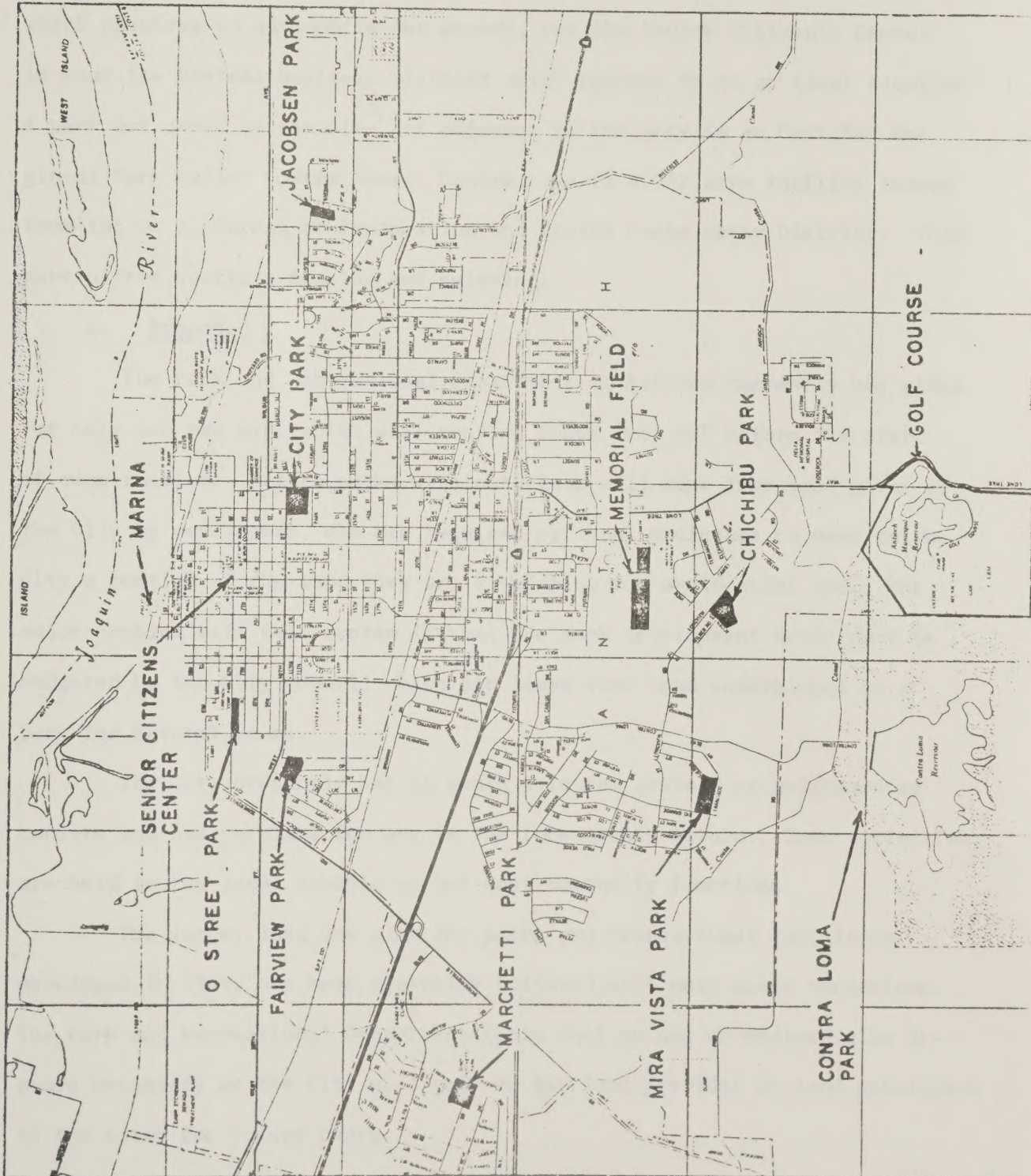


FIGURE 29

excellent opportunity to utilize at least one facility. Antioch also has a municipal 18-hole golf course, a Senior Citizen's Center, and a recreational pier and marina. The golf course is located southeast of the city which requires an automobile for access, but the Senior Citizen's Center is near the Central Business District which appears to be an ideal location. A park not owned by the City but adjacent to the city is an East Bay Regional Park called Contra Loma. Contra Loma is a 772 acre facility leased from the U. S. Bureau of Reclamation and Contra Costa Water District. This park offers boating, fishing and swimming.

b. Proposed

The Park and Recreational Department of Antioch currently has plans for only one new park which will require funds from HUD before the start of construction. Future parks within Antioch will come from land given to the City by developers, who are required by local ordinance to deed to the City a portion of the land they are developing for residential use. One major problem with this system is that the park development money must be budgeted by the City Council which can leave some land undeveloped as a park for several years.

The City presently has no youth oriented centers or neighborhood centers and has no plans for any in the foreseeable future. Teen activities are held in the local schools as are most community functions.

The latest land use plan for parks and recreational facilities developed in 1964, has been generally followed with only minor variations. The Park and Recreational Department feels that no new or revised plan appears necessary as the City will rely on the land provided by land developers as the sites for future parks.

3. Public Development -- Adjacent to Study Area

a. Existing

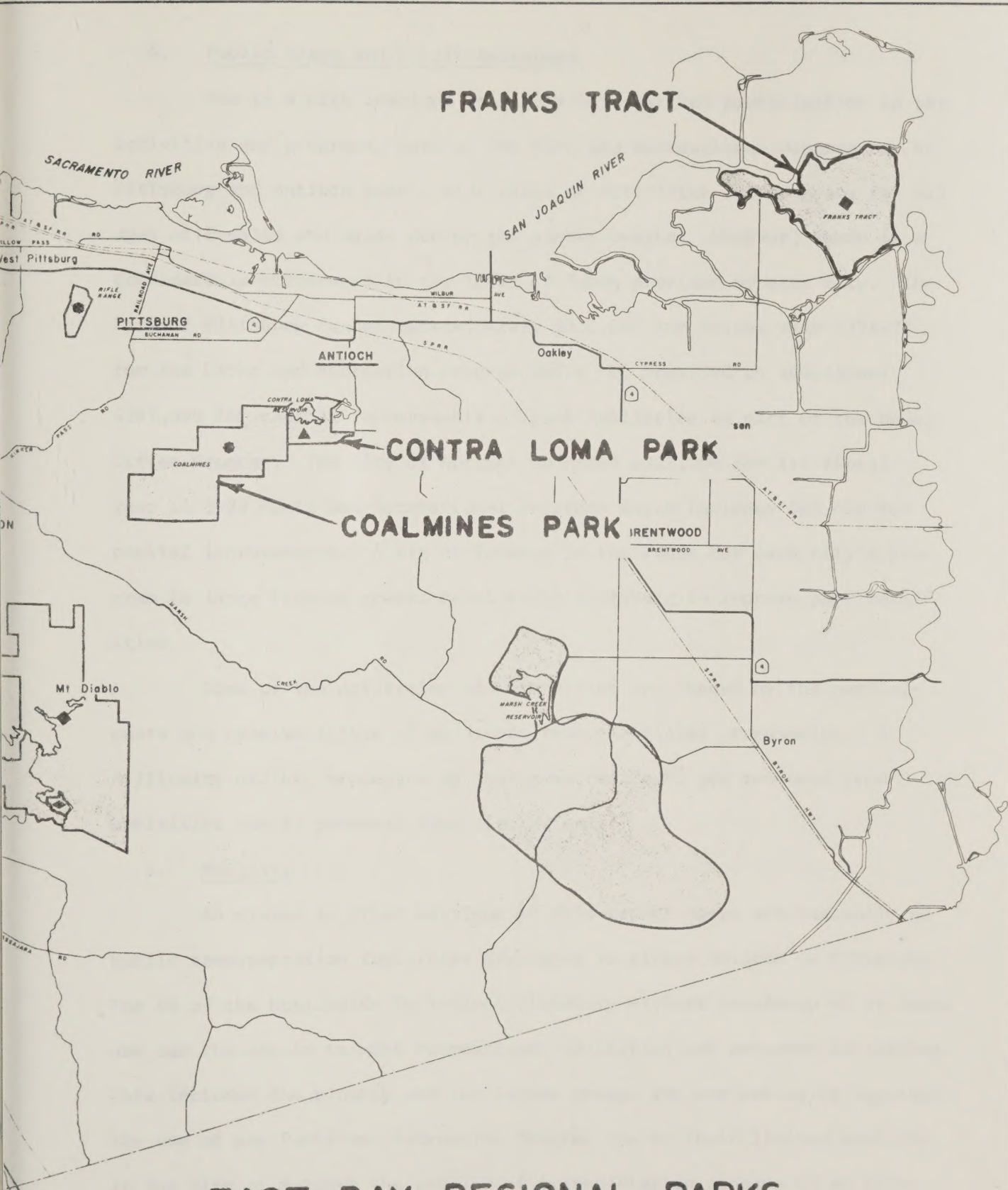
Some park services are provided in the unincorporated areas adjacent to the study area. To the west, the Ambrose Recreation and Park District in the Shore Acres-West Pittsburg area has developed a fifteen acre community park with playfields, a swimming pool, and areas for picnicing.

The area to the east of Antioch is characterized primarily by farming and grazing and is sparsely populated. At present, the City of Brentwood has one neighborhood park and the residents of Bethel Island have constructed the Lion's Club Park. In Northeast Contra Costa County is a substantial tract of land set aside as a state park. This park, known as Frank's Tract, consists of 3,400 acres and is almost entirely an open water area, oriented mainly to fishing and boating.

b. Proposed

While the Ambrose Park serves the needs of the existing population in the Shore Acres-West Pittsburg area, the East Bay Regional Park District has made recommendations for four additional local park sites, one of which should be a community park. However, no funds have been budgeted by the East Bay Regional Parks District for the purchase of the land for these parks.

South of the Pittsburg-Antioch Study area, the East Bay Regional Park District is planning to purchase a large tract of land to be called Coalmines Park. This park will be located adjacent to and extending west to southwest of previously mentioned Contra Loma Park. The historical cities of Nortonville and Sommerville are also located in the proposed Coalmines Park area. Figure 30 is a map showing the location of existing and proposed parks outside the municipal boundaries of Antioch and Pittsburg.



EAST BAY REGIONAL PARKS EASTERN CONTRA COSTA COUNTY

FIGURE 30

4. Public Usage and Public Awareness

Due to a high level of community interest and participation in the activities and programs, both of the Park and Recreational Departments of Pittsburg and Antioch plan a wide range of activities and programs for all ages of females and males during the summer months. However, there is a considerable difference in the level of funds provided by each city. The City of Pittsburg funded approximately \$239,000 for fiscal year 1971-72 for the Parks and Recreation Program while HUD provided an additional \$247,000 for capital improvements of park facilities as part of the Model Cities Program. The City of Antioch budgeted \$222,000 for its fiscal year 1971-72 Parks and Recreational Programs which includes \$57,000 for capital improvements. A big difference in the funds for each city's program is large Federal grants received by Pittsburg to improve park facilities.

Some of the activities of both cities are funded by the participants and receive little if any funds from the cities' treasuries. A difficulty of this procedure is that some residents are excluded from activities due to personal fund limitations.

5. Mobility

As stated in other sections of this report there are basically no public transportation facilities available in either Antioch or Pittsburg. For 8% of the households in Antioch-Pittsburg without ownership of at least one car the access to most recreational facilities and programs is limited. This includes the elderly and low income groups who are basically deprived the use of any Parks and Recreation Program due to their limited mobility. In the City of Antioch the problem of transportation appears to be less severe with a greater portion of the households owning automobiles and the wider dispersion of the park facilities. To alleviate this mobility

problem, some form of public transportation must be planned and operated in both Antioch and Pittsburg to provide mobility to the increasing numbers of elderly that will reside in both communities.

6. Summary and Recommendations

The present Parks and Recreation Program in the study area is a three part problem: (1) The residences within the municipal boundaries of Antioch have a separate program; (2) The residences within the municipal boundaries of Pittsburg have a program that is planned and administered independently of Antioch; and (3) The residences outside of the two municipal boundaries have no recreational program except that provided by the East Bay Regional Parks District. At the present time there is no coordination between any of the three areas and none is anticipated in the immediate future. However, the general consensus in the study area is that both cities have adequate park facilities, or that the addition of park facilities in final planning or construction stages will make the facilities adequate for the existing population. Access to the park facilities and/or the recreational activities is presently oriented to the automobile. This excludes the citizens of limited mobility such as the elderly, handicapped, low income, young, stranded housewife, and non-driver.

The most immediate need of both cities is a municipal transportation system that will provide mobility to all population segments. It is recognized that such a system could not be self supporting and must receive a sizeable annual subsidy. Two sources of this subsidy are grants from Urban Mass Transportation Administration (UMTA) which is part of the Department of Transportation (DOT) and funds from the State of California which has tax revenue, especially for urban mass transportation facilities.

In Pittsburg, the Model Cities Program will provide additional park facilities but Antioch is looking to land developers for its additional parks, which is less than ideal. By City Ordinance, the developer must provide the City of Antioch a certain percentage of the total land developed for residential use for park space. However, this parcel of land can often be in an undesirable location and difficult to develop as a park due to its shape or topography. The City of Antioch should budget to purchase desirable land both in location and layout before areas are developed as residential and then become too expensive.

Since the area outside the existing municipal boundaries of Antioch and Pittsburg will develop as residential to some degree, park facilities for these people must be planned. The East Bay Regional Parks District is responsible for parks outside of municipalities in Contra Costa County. Although such a purchase has been proposed, it is strongly recommended that this agency purchase the area known as Coalmines Park. The Park District should also investigate the possibility of purchasing a large tract along the eastern boundary of Contra Costa County, currently designated as a flood plain. If this is not feasible, the county should zone this area as agricultural to insure that no residential development occurs.

III-G Transportation

Introduction

The transportation needs of the study area have been approached on both the basis of what exists today and the future demands within the selected time frame of the next ten years.

We have attempted to match the future needs of transportation to the broader social demands of employment access, social and governmental

services access and, in general, to the overall dictates of community mobility.

To these ends we address this section.

General

The study area is presently served by a network of publicly owned and maintained roadways; a privately owned, public access bus line (Greyhound); and privately owned, public access taxi systems. The costs and availability of these existing systems are discussed below as well as a listing of proposed new systems:

1. Road Systems

(A) Existing Public Roads -- The major access routes serving the study area consist primarily of State Routes 4 and 84. Route 4 is a part of the State Freeway and Expressway System and the Federal and Primary System. It is a 4 lane divided expressway to P.M. 22.8 (measured from Route 80) and freeway from there to P.M. 30.9 where it transitions to 2 lane conventional highway. Median width is variable in the 4 lane divided portion. Route 84 is a 4 lane freeway for 1.2 miles from its junction with Route 4, narrowing to 2 lane conventional road at the bridge approach. Since both these roads are toll free (they were built and are maintained through gas tax funds) their costs might be measured in the vehicle operating costs of the users. Rather than dwell, however, on average vehicle operating costs, average trip length, etc., these facilities should be judged on availability and effectiveness. To this end the following data has been extracted from the State Division of Highways regarding the 1970 traffic flow over these routes.

Route 4

Max. Peak Month Average Daily Traffic on this route, between the junction of Route 680 and the Junction of Route 84 N, occurs within the

limits of Antioch, between the Somersville Rd. Intersection and the L Street Intersection and is equivalent to 29,500 vehicles per day.

Route 84

Maximum Peak Month Average Daily Traffic on this route (over the Antioch Bridge) is equivalent to 6,100 vehicles per day.

The above figures taken in isolation indicate a usage well below practical operating capacity for roadways of that nature. (40,000-50,000⁸ vehicles/day per four lane freeway and 9-12,500⁸ vehicles/day per 2 lane facility.) We must also, however, consider the availability of this mode of travel to the residents of the study area. The following data is germane to that consideration.

CAR OWNERSHIP IN THE STUDY AREA*

<u>No. of Pittsburg-Antioch Households With No Car</u>	<u>% of Households Involved</u>	<u>No. of Pittsburg-Antioch Households With One Car</u>	<u>% of Households Involved</u>
1,340	8	7,599	47

*Based on 1965 BATSC Home Interview Survey.

The above figures indicate an inability, on the part of a significant number of residents, to take advantage of the public road system due to non-ownership of private vehicles. The situation is more accurately understood when one realizes that the aggregate 8% figure tends to de-emphasize the high percentage of low income families without auto access.

This same unavailability can obviously be extended to the arterial and feeder road systems of both Pittsburg and Antioch. In addition to this shortcoming, a study performed by Hahn, Wise and Associates (Planning Consultants), through an urban planning grant issued by HUD, indicates several

⁸ Hahn, Wise and Associates - "Pittsburg Circulation," "The Circulation Element of the General Plan for the City of Pittsburg," July 1971.

deficiencies in the arterial and feeder road system of the City of Pittsburgh. These deficiencies include a need for: upgrading the general condition; increased R.O.W. width and pavement width of several specific streets; and improved traffic control measures at high accident rate locations. This study was conducted in December, 1970, under the provisions of Section "701" of the Housing Act of 1954 (as amended).

Analysis and evaluation of the data and recommendations of the Hahn, Wise report will not be dealt with here. It is sufficient to state, however, that this detailed study exists and does point up deficiencies in the areas previously mentioned. A similar study would be of definite value in Antioch.

(B) Future Highway Construction

Route 4 Planning. This highway is currently a four lane facility which, according to the State Division of Highways (District 4), may be expanded to an 8 lane facility beyond our 10 year study period. The 8 lane capacity would run from Route 84 to Route 680 under present plans. Along with this expansion the Division of Highways is considering the purchase of a right-of-way for a median strip along which either BART vehicles or buses could operate. Such joint use of that transportation corridor would result in an effective means to reduce land acquisition costs for the agencies involved.

The manner in which the state law is written, however, requires that if the median strip is acquired for joint use it must be utilized for that purpose within 5 years of purchase (Assembly Bill 2332). This imposes a coordination problem on the Division of Highways and BARTD or A-C Transit, whichever chooses to share the facility.

Route 24 Planning. Another plan (presently under suspension by the Division of Highways) is an extension of Route 24 from Interstate 680

north of Walnut Creek to the adopted portion of Route 4, between Pittsburg and Antioch. The original concept involved a highway 8 lanes wide, which could tie into a distant future bridge facility spanning the San Joaquin River.

Among other benefits, this route would reduce travel time for private vehicle users to the shopping areas in the Walnut Creek vicinity.

Since action on this plan has been suspended by the Division of Highways its future construction is debatable at this time.

(C) Recommendations -- In light of the above information and considerations it is recommended that:

(a) Expansion of Route 4 and construction of Route 24 should be evaluated on a basis of present and forecasted traffic counts. Our feeling on both these projects is that the most economical timing of construction would occur beyond the future 10 year period under consideration.

(b) Of the recommendations contained in the Hahn, Wise report on Pittsburg vehicular circulation, the two major proposals emerging which we support within the stated time frame are: (1) The need for upgrading Harbor Street to a 4 lane arterial road (to alleviate Railroad Ave. congestion); and (2) The modification of Railroad Avenue (including the construction of median strips with left turn stacking lanes at high activity intersections). Railroad Avenue and Harbor Street might also be considered for 1-way traffic to aid the vehicular circulation situation.

(c) A "701" study (similar to the Hahn, Wise Pittsburg study) be conducted in Antioch.

2. Greyhound Bus Lines

(A) Existing Service -- The Greyhound Bus Company presently operates a carrier service offering various routes, among which are the following:

Antioch - Pittsburg - Port Chicago -

Concord - Pleasant Hill -

Walnut Creek - Lafayette -

Orinda - San Francisco.

In addition to the above route there are two scheduled daily buses (Westbound) emanating in Antioch, serving Pittsburg and Port Chicago and "expressing" to San Francisco via Martinez. A similar schedule exists in the Eastbound direction.

Below is listed some pertinent one way service information:

<u>FROM</u>	<u>TO</u>	<u>FARE</u>	<u>SCHEDULED SERVICE TIME</u>
Pittsburg - Antioch		\$0.45	16 min.
Pittsburg - Concord		0.65	35 min.
Pittsburg - San Francisco		1.90	105 min.
Pittsburg - Oakland		1.40	90 min.

Direct service from either Pittsburg or Antioch to San Francisco is limited to a total of two scheduled daily buses arriving in San Francisco prior to 9:00 a.m. A Pittsburg or Antioch resident has meager bus service available for commuting to a San Francisco based job.

(B) Probable Future Service -- It is unlikely that Greyhound service will remain as presently scheduled once BART is operational. Demand for service between the study area and the BART served stations will shift almost entirely to the BART system, and, if a BART bus feeder system is instituted between Concord and the study area (which appears likely at this writing) the Pittsburg/Concord and Antioch/Concord Greyhound service may also disappear.

Since Greyhound operates under an obligation to serve the public, any alteration or decrease in service along existing scheduled routes would have to be made under the auspices of the Public Utilities Commission.

(C) Recommendation -- Greyhound should be allowed to alter their present service connecting Pittsburg/Concord and Antioch/Concord providing BART feeder bus service is implemented.

3. Private Taxi Operations

(A) Existing Service -- There is one taxi company in each of the study cities. Pittsburg is served by the Yellow Cab Company, 190 E. 7th Street (Tel. 432-6487). Antioch is served by the Antioch Sedan Taxi Company, 510 W. 2nd Ave. (Tel. 757-4111). Both companies respond to telephone calls for residence pick up service and charge customers on either a metered or flat rate basis.

The Pittsburg company charges 70¢ for the first 1/2 mile and 10¢ per 1/5 mile thereafter and the Antioch company charges 60¢ for the first 2/5 mile and 10¢ per 1/5 mile thereafter. Some examples of flat rates are as follows:

Pittsburg - Concord:	\$6.00
Antioch - Concord :	\$8.00
Antioch - Martinez :	\$10.00

Although a Pittsburg to Antioch run would be on a metered basis an average cost would be about \$2.50. Each company presently handles about 100-150 calls/day.

(B) Recommendation -- Private taxi service should remain an item of private enterprise and allowed to expand or contract as such.

4. BART

(A) Planning Status -- Studies are presently being conducted by the Bay Area Rapid Transit District to ascertain the feasibility and desirability of extending BART service to the Pittsburg-Antioch study area from the present Concord terminus. If extension is determined to be desirable, it is believed that the currently proposed rate structure would be maintained in the final configuration. Those rates being:

30¢ min. fare	- up to 4 miles
4¢/mile	- 4 to 10 miles
3¢/mile	- 10 to 15 miles
2¢/mile	- over 15 miles

(\$1.25 maximum)

Although no definitive route structure has been established it is believed that the two most likely routings will involve (1) the existing Southern Pacific R.R. right-of-way, or (2) the median strip area provided by a future expansion of State Highway Route 4.

Figure 31 indicates the anticipated peak hour travel times on the BART system as presently envisioned. An extension to the study area from Concord would require an additional 15-20 minutes.

Funds are available for this extension study phase, but no money has actually been allocated for construction above and beyond the present BART configuration (seventy-five miles in total length). If a determination was made that an extension of the BART system was both feasible and desirable additional funds would be required by either a federal grant or an extension of the current BART tax imposed on the citizenry.

A preliminary independent analysis by the multidisciplinary team indicates a daily patronage of 13,900 round trip travelers would be required to have annual costs exactly equal annual benefits. (See Appendix, item A.) Based on the fact that this number would have to predominantly represent a commuting element and in face of the origin and destination data contained in the "Location of the Working Force" section of "Economic Factors" (Part III -- Subsection E), we feel that this patronage would not be reached for some time to come. (BART Report, 5/69, projects a maximum of 4,500 round trip passengers for Pittsburg/Antioch, combined, by 1990.) Knowing, however, the long delays in the original BART construction and

BAY AREA RAPID TRANSIT SYSTEM

PEAK-HOUR TRAVEL TIMES IN MINUTES

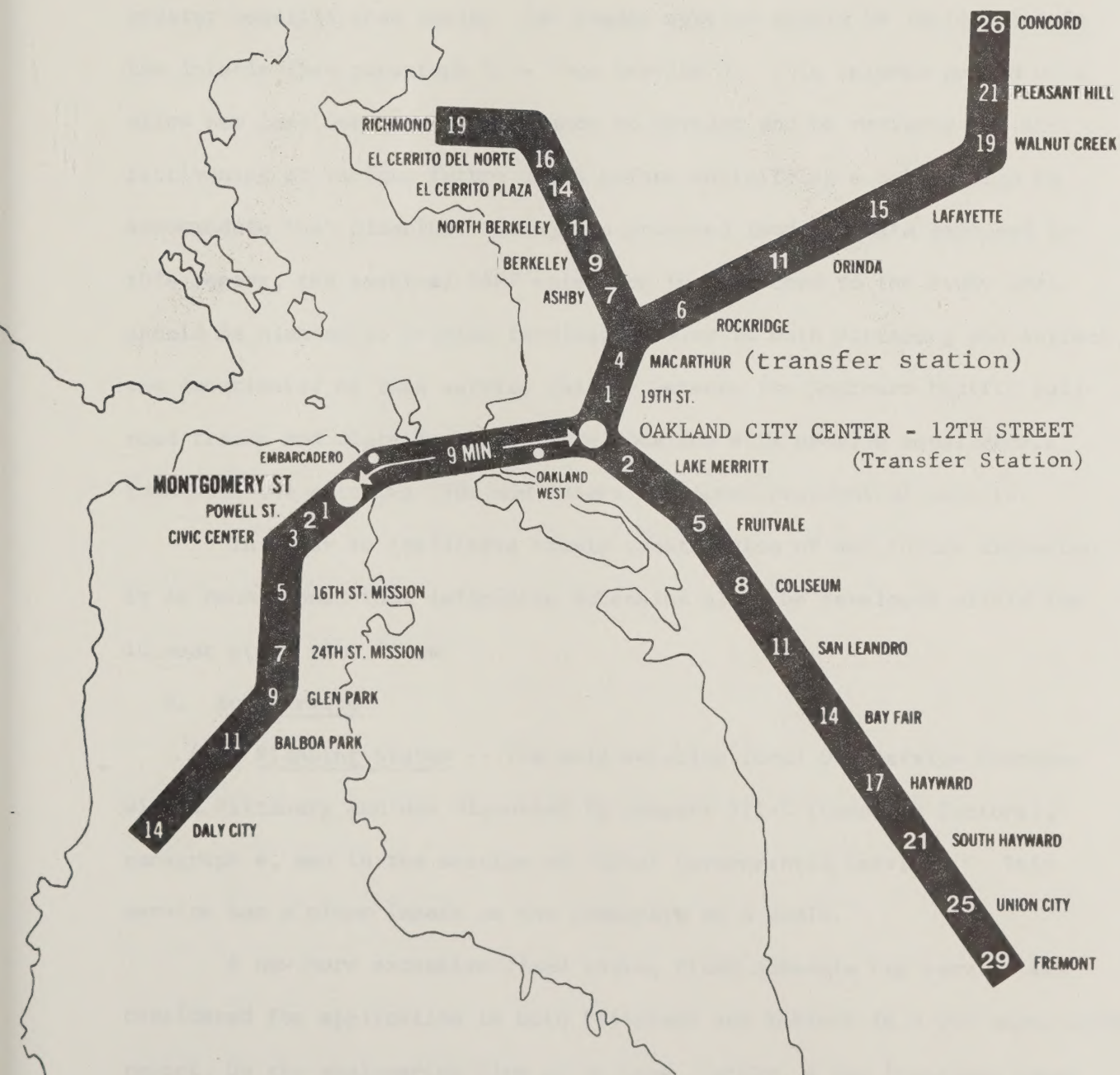


Fig. 31

the political pressures exerted by Pittsburg/Antioch residents who feel their taxes to BART have not resulted in BART access to the area, we do not feel it unwise to commence planning for that extension within the near future.

(B) Recommendations -- Construction of this extension is not foreseen or recommended for the 10 year future time frame under consideration unless patronage forecasts show a marked demand increase which point to greater benefits than costs. Bus feeder service should be implemented in the interim (See paragraph 5 -- "Bus Service"). This interim period will allow new land use planning a chance to develop and be reviewed for effectiveness at various future dates before solidifying a BART design to accommodate that planning. Using the proposed land use data espoused in this report, the eventual BART extension from Concord to the study area should be planned to provide terminal service to both Pittsburg and Antioch, the location(s) of this service falling between the Southern Pacific railroad tracks and State Route 4. This location will provide equal access from both the existing CBDs and future developed residential pockets.

In order to facilitate timely construction of any future extension it is recommended that definitive extension plans be developed within the 10 year study time frame.

5. Bus Service

(A) Planning Status -- The only existing local bus service operates within Pittsburg and was discussed in subpart III-E (Economic Factors), paragraph 4, and in the section on "Local Governmental Services." This service has a minor impact on the community as a whole.

A new more extensive fixed route, fixed schedule bus service was considered for application in both Pittsburg and Antioch in a yet unpublished report, by the engineering firm of De Leuw, Cather, a San Francisco based

consultant working on a DOT grant to determine the transportation needs of Contra Costa County.

The capital and operating costs were estimated for this system and patronage was projected to the year 1980.

It was concluded by the consultant that the total capital and operating costs for each bus route analyzed would exceed the total benefits or savings to users and to other sectors of the total community by a substantial margin. The forecasting models used in predicting patronage were unavailable to the study team.

The De Leuw Cather report goes further, however, and alludes to the responsibility of government to furnish transportation to its citizens of limited mobility capability. This category contains the following people:

- Elderly
- Handicapped
- Low Income
- Young
- Stranded Housewife
- Non-Driver

with predominant emphasis placed on the elderly and low income groups.

Based on the above criteria, counts for October, 1970, generally confirm the concentration of limited mobility groups in the Martinez and Pittsburg-Antioch subareas.

The De Leuw Cather Company recommends that a bus line should be operated between Martinez, Concord, and Pittsburg-Antioch to extend BART accessibility into these communities. The same conclusion was reached by the BATS Commission in 1969 for the Concord-Antioch corridor.

The De Leuw Cather study specified an exact route on which service should be provided, but in keeping with an objective of flexibility in transportation facilities we will only generally describe the route as connecting the County Government in Martinez, the county hospital along

the Alhambra Ave.-Berrelessa Street couplet, the Veterans Hospital on Muir Station Road, the Diablo Valley College, the Sun Valley Shopping Center, the Concord BART station, the Concord Shopping Center, various recreational areas of both Pittsburg and Antioch (see section III-F), and (during commuting hours) the major industrial plants of both Pittsburg and Antioch, and finally, strategically located residential pockets of both Pittsburg and Antioch.

Service is recommended at half hour headways during rush hours and on the hour at other times.

With fares set at 50¢, patronage is estimated at 1500 people per weekday; annual costs are estimated at \$370,000; annual revenue is projected at \$210,000, representing a net annual operating loss of \$160,000.

Patronage estimates were based on existing Greyhound passenger bus records, taxi operations, and 1965 BATS O&D study figures all cranked into a modal split forecasting model. Greater detail of this patronage forecasting model was not available.

(B) Recommendations -- We feel that the feeder bus service should be created immediately to provide access to BART from the study area and to fulfill a presently unmet transportation obligation to both communities. This type of transportation is flexible and will allow the routing to accommodate any future shift in the overall land use plan.

This service would be somewhat altered in route structure at the time that the BART extension is eventually constructed.

6. Other Proposed Transportation Systems or Services

(A) "Dial-A-Bus" Service/"Corridor-PAS" System -- A more flexible bus route is discussed at some length by the De Leuw Cather Company. Its basic components include a door-to-door service, phone-response, and a more or less fixed route of destinations.

Although forecasting estimates and patronage are not as reliable for this system (due to its innovative nature), De Leuw Cather sets the total annual costs at \$1.1 million requiring an estimated \$1.30 per passenger to attain a break-even status.

The "Corridor-PAS" (Publicly Owned Automobile) System is comprised of small, electric-powered vehicles, distributed in selected areas within easy walking distance of the intended users. Among other benefits this system would aid in the fight against air and noise pollution due to its source of locomotion; large parking areas presently used for private autos could be renovated for other more useful purposes.

As the technology required to implement this system is not yet perfected however, its applicability to the study area within the specified 10 year time frame is doubtful.

(B) Recommendations -- Dial-a-bus service would provide access to a fixed-route bus service for those without private auto access but the fixed-route bus service definitely has priority by way of need over the dial-a-bus system. Also, the predicted fare of the Dial-a-bus system may not be that much less than would be expected from the use of private cabs over short-haul distances.

In general, then, the dial-a-bus system would be useful but there are other services of more obvious benefit and need, e.g., the BART feeder bus system.

7. Summary

The main feature of this section is the acknowledgement of the present transportation system's inability to adequately serve the autoless commuter, the lower income groups, the stranded housewife, et al.

In keeping with the proposition that all good criticism should be augmented with alternative plans of action, recommendations are thereby

made to: implement the modification and general upgrading of various public roadways, e.g., Harbor and Railroad Ave. in Pittsburg; carry out studies vital to future roadway planning purposes, e.g., "701" studies in Antioch; institute a viable intercommunity and BART bus feeder service; and proceed with definitive planning which will extend BART to the study area at some yet to be determined time in the future.

The above proposals will hopefully improve access for commercial, industrial and private purposes and generally complement the broader goals and objectives of this report.

It is important that we think of "Transportation" as a tool serving the community. It is necessary then that our planned transportation system closely follow, for example, the guidelines set forth in some agreed upon "Land Use Plan." This gives us some measure of demand and, in the final analysis, some measure of how we met that demand. It is important, also, to recall that transportation related services and goods comprise approximately 20% of the nation's GNP. This factor reminds us that transportation is more than a tool, in a larger sense it is a commodity which, if optimally "packaged" and "marketed" will return the most profit.

For the above reasons then, to serve the community and to maximize availability and stimulate activity, we have included "Transportation" as a major item of concern in the Pittsburg/Antioch area.

IV

RECOMMENDATIONS

1. Introductory Comments

Prior to reviewing the recommendations contained throughout the body of this report, it was felt that a restatement of goals and objectives be made in a more definitive manner. A side-by-side comparison can then be made and the relevance and direct relationship between goal and recommendation clarified.

In very general terms we have attempted to provide the reader with a background of the study area that has been acquired through research, contact with various local authorities, and a borrowing (for want of a harsher word) of data from public and private sources concerned with some aspect of the study area.

The background that has evolved has included historical information, a description of the people and their statistical makeup, and, hopefully, the apparent areas needing modification, redirection, resurrection or (as in some areas) entirely new efforts.

In all of this we have been laboring under a set of guidelines which, if successfully followed, will unify the growth of the study area, given the level of energetic and financial input that we envision. Our recommendations are addressed to circumstances as we envision their development during the next ten years.

Various guides, goals, objectives, and criteria were discussed before the team settled upon the following statements of direction:

A. The interests that these recommendations are intended to serve are those of the residents of the Pittsburg-Antioch area of the eastern portion of Contra Costa County. We have taken into consideration those features of the area, social, environmental, economic, and structural, which affect the residents' lives.

B. We recognized the fruitlessness of dealing with haphazard growth patterns so we therefore established the desirability to maintain and encourage identifiable concentrations of urban development around community centers.

C. In keeping with the provisions of urban development around community centers, we are assuming the desirability of preserving extensive open space and conserved areas, as well as improving the quality of the total environment.

D. Our focus has been on the role of transportation facilities in maintaining the overall standards of community wellbeing implied by these concepts; we are, therefore, presenting recommendations which would lead to the establishment of a viable multi-mode transportation system for the area. Included in this concept is the requirement that the transportation facilities be designed to serve the present and anticipated needs of the community in a manner which is consistent and completely coordinated with other aspects of community life.

E. After a short investigation of both Pittsburg and Antioch it became apparent that a destructively competitive governmental structure had evolved between the two areas, each vying for existence without regard for the other. Remedial to this situation was our determination of the need for an operational regional organization with strong intergovernmental co-operation, coordination, and citizen participation.

As the format of our goals and recommendations developed toward the concepts enumerated above we became aware of their coincidence with the "Concept for a city-centered regional plan" proposed by ABAG, for the 1970-1990 era.

We now restate our recommendations, based on the conclusions we have reached in the foregoing sections. The relative weight we attach to each is reflected by their grouping.

2. Summary of Recommendations

As stated in the "Introductory Comments" of this section, we will now list the results of the teams' study effort by way of recommendations which we feel best implement the goals and objectives previously listed. These recommendations will be offered in a ranked order of descending import to the study area.

Our major recommendations are:

- (a) The Pittsburg and Antioch municipal limits should be extended far enough around each city so as to control, by the police powers granted them by the State, any urban development within these new boundaries. The industrial areas surrounding Pittsburg and Antioch should be included in the respective municipal limits.
- (b) The City Managers of both communities should direct an all citizen involvement campaign to improve the physical appearance of the area, particularly the central business districts and commercial areas.

Through a self help or "bootstrap" approach, all citizens of the study area should be encouraged to support local businesses thus improving the economic climate and hopefully serving as a lure to new business ventures.

- (c) Inter-community and BART feeder bus service should be created immediately to provide heretofore unavailable mobility to non-drivers of the study area. This type of transportation is flexible and will allow the routing to change to accommodate any future shift in the overall land use plan.

This service could be altered in route structure at the time that BART is actually extended. Definitive BART planning should proceed, within our 10 year time frame, for extension to the study area at the economically appropriate time beyond our study time frame. (See section III-G)

- (d) Various services provided to the communities should be amalgamated in an effort to improve the quality of those services as well as their availability to both communities. This amalgamation can only be accomplished at the City Council level and specifically involves the following services:

Fire Services

The fire facilities for these two cities should combine services or join the county fire district.

Health

A study to find specific problems and deficiencies in the health facilities of these two cities should be carried out. When these problems have been definitely identified, a possible combining of existing facilities of the entire study area to solve these deficiencies may be initiated.

Schools

It is recommended that education in this area be studied in order to correct its apparent failure to produce graduates well equipped to meet vocational needs.

Water and Sewage

It is recommended that all levels of government as well as the City Councils encourage these two cities to either combine their present facilities into one facility for the two areas or to become part of an overall regional system. These governmental agencies should be at the federal, regional, and city levels.

- (e) The ABAG city-centered concept should be incorporated in future land use plans; growth should be controlled; selected agricultural land and open space should be preserved; and land use and transportation planning should be coordinated.

The following recommendations should receive serious consideration:

- (a) Zoning regulations of both communities should reflect the concepts that steep hills should not be developed for urban purposes; and that landslide and seismic areas be identified and restricted from urban development for the overall health, safety and welfare of the public.
- (b) The City of Pittsburg should initiate modifications and a general upgrading of Harbor Street and Railroad Avenue as per the recommendations of a "701" study conducted by Hahn and Wise, Consultants; and that a similar "701" study be conducted immediately for the City of Antioch. (See section III-G)

(c) A dial-a-bus service be considered for use within each community in order to provide access to the more conventional bus system previously recommended. (See section III-G)

(d) The City of Antioch prepare a positive plan for park development that is independent of the land for parks provided by developers.

The East Bay Regional Parks District purchase the tract of land called Coalmines Park.

The East Bay Regional Parks District purchase flood plain land along the eastern boundary of Contra Costa County.

(See section III-F)

Areas of somewhat less urgency require:

(a) That some means be instituted (possibly by the Local Agency Formation Commission) whereby the average citizen may inform himself of all the levels of control or tax levying authority over his specific city; county; area; and house. This might be listed in an hierarchical manner with those bodies with supreme authority on the top of the chart or list, and those with lesser powers in the proper position below.

(b) That there be a thorough study of the ramifications of reducing the flow of the San Joaquin River for any reason.

APPENDIX A

BART EXTENSION FEASIBILITY

The following analysis is not intended to be a rigorous exercise in establishing the ridership requirements needed to justify a BART extension from Concord to Pittsburg/Antioch rather, though, a very rough ballpark guide as to what general size patronage demand might be expected before thoughts of rail extension are seriously considered. It might be contended that various aspects of benefits have been neglected in our analysis, such as the increased land values which would envelope the BART extension or the creation of jobs and new community income sources that would normally be expected in conjunction with such a project. To these comments we can only reiterate our intent to develop only a rough guide towards which we can direct our discussion. To this end, then, an earlier Benefit/Cost analysis entitled, "A Benefit/Cost Analysis Of The Bay Area Rapid Transit System," written by Charles A. Lave, of the University of California, was used as a guide and modified for application to the subject rail extension.

I. Costs of Extension

This entity is obtained on a straight proportionality basis derived from the cost for the 75 mile configuration presently built.

Cost of Original Configuration (less Transbay Tube) = 1.042 billion⁹

\$1,042,000,000/75 miles = \$13,893,000/mile

Estimated Extension Distance = 12 miles

Estimated Cost of Extension = (\$13.9 million/mile) (12 miles) =
\$166.8 million

⁹San Francisco Bay Area Rapid Transit: Promises, Problems, Prospects; by Norman Kennedy, Prof. of Transp. Eng. & Assoc. Dir., ITTE, U.C. Berkeley.

II. Benefits of Extension

Estimated Average Time Saving to Concord

over Auto Mode: 10 minutes

$$(1) \text{ Annual Travel Time Benefit: } 10 \text{ min/pass.} \times 92\text{¢/hr.} \times 1 \text{ hr/60 min.} \times \\ \times \text{ pass/day} \times 365 \text{ days} = \$56X$$

(2) Annual Accident Reduction Benefit:

$$(a) \text{ Death reduction } \$4,000/\text{death} \times 0.5 \text{ deaths/million miles} \times \\ 12 \text{ miles} \times X \text{ pass/day} \times 365 \text{ days} = \$8.76X$$

$$(b) \text{ Property Damage Reduction } \$300/\text{accid.} \times 0.67 \text{ accid/million miles} \times \\ 12 \text{ miles} \times X \times 365 \text{ days} = \$0.876X$$

(3) Annual Insur. Prem. Savings (\$33/auto.):

$$(\text{use } 1.3^{10} \text{ people/car average}) = \$33 \frac{X}{1.3} = \$25.4X$$

(4) Annual Parking Charges Savings (@ \$1/auto):

$$(\text{use } 1.3^{10} \text{ people/car average}) = \$1 \times \frac{X}{1.3} \times 365 \times 1/2 \text{ (every 2 trips re-} \\ \text{sults in one parking f} \\ = \$140.38X$$

(5) Annual Freight Shipment/Traffic Control Cost Savings:

Using a straight proportion from the original 75 mile rail configuration

$$\frac{12}{75} \times (\$2,128,000 + 242,000) \\ = \$379,200$$

Summation of Annual Benefits

Annual Travel Time Savings	=	\$ 56	X
Annual Death Reduction Savings	=	8.76	X
Annual Property Damage Reduction Savings	=	0.876	X
Annual Insur. Prem. Savings	=	25.4	X
Annual Parking Charges Savings	=	140.38	X
Ann. Frt. Shipt/Traffic Control Cost Savings	=	\$379,200	
Summation	=	\$379,200 + 231.416	X

¹⁰
Ibid.

A 5%/yr. increase above these 1966 figures will be allowed to bring the estimate up to the present 1972 estimating time base; this results in the following revision:

$$1.340 \times [379,200 + 231.416X] =$$

$$508,100 + 310.1X$$

III. Patronage Required for Benefit/Cost Ratio to Equal 1.0

Using a total cost of extending the system to Pittsburg/Antioch of \$166.8 million and discounting fare intake as exactly offsetting operating and maintenance costs, the benefit/cost analysis (at 50 year life, 4% interest - the same as used in the Lave analysis) shows a demand for X passengers per day in order to have annual benefits exactly equal to annual costs; where X equals:

$$508,100 + 310.1X = (166,800,000) (.05478)$$

$$508,100 + 310.1X = 9,137,000$$

$$310.1X = 8,628,900$$

$$X = 27,800 \text{ passengers/day}$$

$$\text{or } 13,900 \text{ round trip passengers/day}$$

APPENDIX B

METHODOLOGICAL COMMENTS ON THE MULTIDISCIPLINARY APPROACH

1. The Organization of the Class

The original announcement for the course in which this Report was written read as follows:

"AN EXPERIMENTAL PROJECT-STUDY COURSE"

by a class organized as a

MULTIDISCIPLINARY TASK GROUP

"To deal more broadly with problems affecting the quality of urban living will require interaction and collaboration among the social science and environmental disciplines and the design professions. The purpose of this student-oriented course is to provide graduate students from various departments and schools with experience in collaboratively exploring a range of physical and social activities in an urban-rural region.

"Working in the east Contra Costa County area, the task group will analyze, develop and propose recommendations relating to a set of problems, with special consideration to mobility needed to sustain desirable social and economic activities."

1971-2 is the third year that a multidisciplinary seminar has been organized by Professors Davis and Goodman, whose combined experience of a century's involvement in working with complex issues at the intersection of the social, physical, and environmental disciplines has led them to conclude that the time has come to assume an active role in bringing broad-range planning methodology into line with modern needs. This year's class was numerically smaller than earlier groups, but the background experience of its members was probably more extensive. General meetings (with an informally rotating chairmanship) were held 3-4 hours per week. The diversity of disciplines represented this year was not as great as it might have been under

other circumstances due primarily to budgetary stringency in the university which prevented a number of students from participating.

2. The Multidisciplinary Approach

A. Rationale

The idea that a multidisciplinary approach to problems of urban and regional planning represents, potentially, a major methodological improvement has received a great deal of attention in the last few years. Engineering and architectural journals devote editorials to it, planning-consultant firms have begun to adopt certain innovations related to it, and similar interdisciplinary experiments in other fields are prominent and well-known. We will discuss some of the considerations that have given rise to this enthusiasm, and some potential objections to theoretical and practical aspects of the approach. Our own experience during the past year will serve as an example of some of the strengths and weaknesses inherent in this "method."

The multidisciplinary approach addresses itself to two major problems presently confronting any attempts at rational planning in the areas of land use, urban design, or what we may simply call "engineering" in the most general sense of the term. The greatly enhanced degree of interdependence between all aspects of urban living, social and physical, that characterize advanced industrial societies in recent decades -- the readily apparent fact that no single feature stands in isolation, and that the impact of a development in one area invariably has ramifications which are felt throughout the whole -- carries with it a "categorical imperative" which any proposed innovations must confront. What appeared in the past to be negligible side-effects of a proposed development are now seen to be critical externalities whose potential influence for good or evil require serious consideration and evaluation. The most obvious instance of this development is in the area of ecology: a host of new laws have been spawned

in the legislatures requiring that the influence on the environment of any proposed project be considered before that project is approved. In this case, the unsuspected repercussions of projects that went ahead without this consideration, ignoring the potential dangers, have been so disastrous and detrimental that even the legislators have been forced to sit up and take notice (see Appendix C). But ecology is not the only area which suffers if the full potential ramifications of a development are not examined beforehand: influences at the social level, on individuals and communities, have been just as serious. These experiences have given rise to the view that intelligent coordination between planners working on diverse areas and at different levels is mandatory. Just as all these features interrelate in their effects on urban living, so must the experts whose specialties relate to one or another aspect of the whole come together and integrate their efforts to produce a coordinated scheme in which cross-influences and mutual interactions in every direction are taken into account.

The second issue to which the multidisciplinary approach is addressed is more general but may be stated more concisely. Experience has taught us that considerations of economy, efficiency, streamlining, and perennial expansion are not enough to produce by their combined efforts the circumstances in which the "good life," the pursuit of happiness can be realized. Therefore, it is felt, planning by government and its advisors must be extended in its import to insure that repercussions at this level of various design schemes are consistent with the best interests of human welfare. This is presumably what is meant by "government for the people," yet it seems not to have been realized until recently that the interests of the people are not necessarily best served by considerations of efficiency, big-business economy, and poverty programs alone. In these circumstances it is hoped that an integrated group of specialists, whose collective outlook should

transcend the limitations inherent in any single methodological approach, can, in consultation with area residents, come to grips with this issue and insure that the human community will be the real beneficiary of proposed urban and regional projects.

B. Criticisms

The logic which makes a multidisciplinary approach a potentially useful means to these desired ends has come under fire from various quarters, and these criticisms (to the extent of their validity) point to potentially serious difficulties which could render a multidisciplinary approach thoroughly ineffective. Of course, in evaluating these ideas one must keep in mind the possible alternatives, one of which is exemplified in the present situation (which no one holds to be completely satisfactory), or others implied in the criticisms themselves. Some of these arguments might be summarized as follows.

1) Working in a multidisciplinary committee is necessarily a time-consuming business. Top-flight professionals, who combine seasoned judgment on the one hand and the creative ability to generate useful new ideas on the other, do not have the time to engage in efforts of this sort. Multidisciplinary groups are therefore likely to suffer from mediocrity, and really useful innovations are less likely to emerge than from those first-rank professionals working by themselves, or perhaps in smaller groups.

2) While it sounds fine to speak of integrating the efforts of several disciplines to parallel the integrated interworkings of these different aspects in the real world, in fact the disciplines as they stand are not integrable in this fashion, as they share no common vocabulary and their areas of overlap, if any, are comprised of aspects which the specialists know least about: again, an indication that only mediocrity is to be expected.

3) As desirable as it may be to set ultimate human values as the final goal to be met in various undertakings, no discipline contains the knowledge to indicate just what these ultimate values are or what their concrete realizations in practice would be. The sum of such non-knowledge from the various specialties is still zero. Human values are a "non-discipline," not a "multi-discipline."

4) Lastly, the desirability of any planning is by no means universally assumed, and in particular some would question whether it is appropriate for government agencies or their consultants to concern themselves with personal issues such as the "quality of life."

The last point of view, although rarely stated in explicit form, is prominently implied in the "laissez faire" theory of non-government espoused by those who would have us believe that competition between businesses actually exists and that its continuation is sufficient to insure that everyone will benefit. Unfortunately, as we have noted in Section II-D, the competition which really makes a difference is not that which may pertain between various businesses or pressure-groups, but that between some parts of the business community on the one hand, and community interests on the other. This is not to say that those interests are necessarily conflicting in some philosophical sense, or that they are not in some sense ultimately reconcilable, rather it is to point out that in many cases there is a conflict between what some corporations, developers, speculators, absentee-landlords, and so forth are trying to do, and the real welfare of the community in terms of the quality of life it enjoys. We have noted some aspects of the conflict in the Pittsburgh-Antioch area, and suggested that unless governmental action in the area of future planning can take steps to remedy this situation, the interests of the people who live in the area will continue to be ill-served by their prominent neighbors.

Coming back now to the first and second objections on our list of criticisms, it should be said that the efficiency of a multidisciplinary approach, and its ability to attract first-rank professionals is something that must be tested in practice. If it really were the case that seasoned specialists, by virtue of their experience in dealing (if only indirectly) with the wide range of problems implied in a multidisciplinary approach, were capable of dealing effectively with these diverse aspects of planning, then the record has so far deceived us in failing to show it. This is to say that such specialists, working alone, have so far not been effective enough; it does not imply that a multidisciplinary group composed of individuals without such generalized experience would do any better. Indeed, co-operative and productive interaction in a multidisciplinary group is greatly enhanced by, if not totally dependent upon, some experience in the backgrounds of its constituent members in dealing with concepts outside of a single discipline. Nor can a multidisciplinary group dispense with first-rate professional competence within the various specialized disciplines: no amount of interaction will suffice to overcome mediocrity at this level.

The final criticism seems to us to be the most important, and we grappled with it as a theoretical issue at some length before getting down to the business of writing this Report. It was found, to no one's surprise, that the academic disciplines of psychology and history have no more to say about human values and the goals one ought to set in a planning project than any other disciplines, any more than a clergyman or a philosopher would be expected to know more about real human needs than a layman. The potential contributions of a sociologist are similarly not likely to transcend the merely descriptive. (This is not to say that these disciplines have less to contribute than the others; rather it implies that as specialists they have not come to grips with problems of human values -- a

shortcoming they share equally with the others.) The same is not necessarily the case for depth psychology (or real social history, if there were such a thing), which, unlike sociology or academic psychology, expressly addresses itself to the elucidation of real human needs, wants, fears, and the circumstances which restrict or enhance the possibilities of human fulfillment. However, it has proved impractical to bring psychoanalytic ideas to bear in any respect in which they contravene common sense -- which many of them do. Thus, while the psychological (as well as physical) significance of a highway or set of railroad tracks which divide a town in half is evident to everyone, and while the symbolic significance (as well as the economic significance) at the psychological level of huge prospering factories looming in every direction over a dilapidated town can be readily explained, the same is not true for more obscure hypotheses such as the psychological significance and impact resulting from the alignment of housing developments along transportation corridors whose primary function is to serve economic interests. The conclusion one may draw from this helps to explain why a multidisciplinary group may hope to apply its efforts to real human problems even when "professional expertise" in this area does not exist. Insofar as the members of a multidisciplinary group have learned to recognize in their own personal lives the factors in the physical and social environment which have helped them or hindered them in their own fulfillment, to this extent they will have formulated, consciously or unconsciously, a system of thoughts and values which will determine both the problems they choose to address themselves to and the types of solutions they will select to deal with them. Moreover -- and this is the critical point -- the interactions of a multidisciplinary group, if properly organized and conducted, are calculated to enhance and amplify these implicit values to the extent that they are commonly held by members of the group.

The confidence to give expression to such views, especially if they run contrary to prevailing trends, is generated in a context where others who might not have ventured to act on their own, find themselves "in the same boat." Of course, the success or failure of multidisciplinary groups can only be determined in practice; but it is fair to conclude from such considerations as these that the multidisciplinary approach deserves a fair chance to prove itself.

APPENDIX C

RECENT STATE LEGISLATION WHICH DIRECTLY OR INDIRECTLY
AFFECTS LOCAL AND REGIONAL PLANNING IN THE STATE OF CALIFORNIA¹¹

The laws summarized here were enacted by the California State Legislature during 1971. Unless otherwise stated, all measures became effective March 4, 1972.

SB 325 - CHAPTER 1798 (MILLS)

Provides local funds to improve public transportation systems by 1/4% increase in sales tax at the local level (provides about \$135 million for FY 1972-73, more if matched with federal funds) which is deposited in the local transportation fund. Also provides cities and counties with about \$35 million for general fund use in FY 1972-73 by removing the exemption of gasoline from sales tax.

Recognizes councils of government (COGs) as the transportation planning agency unless other action is taken by counties or by the legislature. The COG (MTC for the S. F. Bay Area) can claim funds needed to administer Act. Funds may be spent for transportation systems, transportation planning, research and demonstration projects, right-of-way acquisition and construction of local streets and roads, including facilities for the exclusive use of pedestrians and bicycles. (Effective date 3/4/72, operational date 6/1/72.)

¹¹ These abstracts have been checked for accuracy against two sources: (1) California Council on Intergovernmental Relations, Abstracts of 1971 Legislation, Feb. 4, 1972; and (2) Duncan & Jones, Urban Planning and Design Consultants, Berkeley, California: "Occasional Information Bulletin Regarding the Significance of Recently Enacted State Legislation: Planning and Zoning Law, Subdivision Law, Environmental Impact Reports," Feb. 18, 1972.

SB 351 - CHAPTER 150 (ALQUIST)

This bill requires cities and counties to prepare a seismic safety element as a feature of the community general plan.

SB 521 - CHAPTER 187 (DEUKMEJIAN)

Extends the period for which an interim ordinance prohibiting uses in conflict with a contemplated zoning ordinance is effective.

SB 620 - CHAPTER 348 (GREGORIO, et al.)

Provides that the board of supervisors of a county may establish by resolution and fund a municipal advisory council for any unincorporated area in the county, the council to advise the board on specified matters relating to that area. Specifies contents of such resolutions.

SB 1257 - CHAPTER 1026 (ZENOVICH)

Makes mandatory rather than permissive the inclusion in city and county general plans of a safety element containing specified features.

SB 1489 - CHAPTER 1083 (MOSCONI)

Specifies that a housing element be developed pursuant to State guidelines under Section 37041 of the Health and Safety code.

Also specifies that the provisions of the planning act requiring the adoption of a general plan and the mandatory elements of the general plan shall apply to charter cities.

AB 128 - CHAPTER 1757 (GREENE)

This bill amends and adds various sections of the Health and Safety code regarding community redevelopment and property rehabilitation. Significant features include:

1) Indian tribe is added to the definition of a "community" for the purposes of community redevelopment law; 2) revises membership of redevelopment project area committees; 3) directs attention of the redevelopment agencies to low and moderate income residents for training and employment opportunities; 4) creates relocation appeals boards; 5) requires agency in city or county over 75,000 population to hold biennial hearings to review, evaluate, and hear testimony on all redevelopment projects.

AB 1301 - CHAPTER 1446 (McCARTHY, et al.)

Adds provisions that city or county not approve subdivisions if certain findings are made: 1) inconsistent with the general plan; 2) site not suitable; 3) causes substantial environmental damage; 4) causes serious public health problem; 5) conflicts with public easements; 6) requires that city and county zoning ordinances be consistent with general plans by January 1, 1973.

AB 1302 - CHAPTER 1327 (McCARTHY, et al.)

Bill provides that the advisory agency or the governing body may submit a tentative map to the Office of Intergovernmental Management and request an evaluation of the environmental impact of the proposed subdivision, and requires such action if the subdivision is a land project. The bill provides for technical assistance from various state agencies to be rendered to a city or a county upon request in connection with the evaluation of proposed subdivision maps.

AB 1378 - CHAPTER 1632 (ARNETT, et al.)

Requires the general plans of counties and cities to include a scenic highway element.

AB 1379 - CHAPTER 1531 (ARNETT)

Requires special districts to coordinate planning with, and obtain approval from, the appropriate local planning agency on the location and construction

of any new district facility that would be within the scenic corridor of any scenic highway.

AB 1504 - CHAPTER 1667 (Z'BERG)

Amends the Public Resources Code to provide that no city or county shall approve a tentative or final map of any proposed subdivision fronting upon public waterways which does not provide for or have available reasonable public access from a public highway, and further requires dedication of a public easement along the portion of the bank of any river or stream bordering or lying within the proposed subdivision.

AB 2439 - CHAPTER 1782 (Z'BERG)

Revises provisions of the Outdoor Advertising Act to prohibit the placement of advertisement or maintenance of advertising display with specific exceptions, beyond 660 feet from the edge of right-of-way of interstate or primary highway if the display is designed to be viewed primarily by persons traveling on such highway.

AB 2538 - CHAPTER 1784 (GONSALVES)

Provides that a landowner, in addition to a county or city, may bring an action to enforce a contract under the Williamson Land Conservation Act.

AB 2622 - CHAPTER 1241 (BRATHWAITE)

Provides specified procedures to govern city and county zoning and planning hearings, including chartered cities.

AB 2870 - CHAPTER 1241 (KNOX)

Requires rather than allows, local agency formation commissions to make governmental studies. Specifies minimum features to be included to complete such studies.

Provides that local agency formation commission shall determine spheres of influence for each local government agency in respective county and provides that the local agency formation commission shall use spheres of influence as a basis for decision on proposals within its jurisdiction. Commissions may also recommend GOVERNMENTAL REORGANIZATIONS within its jurisdiction using the spheres of influence as a basis.

AB 2885 - CHAPTER 1434 (WOOD)

Amends the Community Redevelopment Law to specify that uninhabited sea-shore areas are blighted areas for the purposes of redevelopment under specified conditions. Provides that interest acquired by community redevelopment agency shall be used only for public purposes.

AB 2946 - CHAPTER 1517 (BRATHWAITE)

Bill provides that cities and counties shall not take any action pursuant to the State Planning and Zoning Law which denies an individual or group the ownership, tenancy, use, or development of land on the basis of methods of financing, race, sex, color, religion, national origin, ancestry, or age group. It also makes this provision applicable to chartered cities.

AB 1, First Extraordinary Session, 1971

This enactment was principally for tax reform (property tax relief) purposes but also contains features directly related to open space conservation. These provisions include: Every city and county shall prepare, adopt, and submit to the Secretary of the Resources Agency by June 30, 1972 (see AB 20 below) a local open space plan for the comprehensive and long-range conservation and preservation of open space land within its jurisdiction; the Secretary of the Resources Agency is authorized to establish, after notice and hearing, rules and regulations, and require reports from

local officials in order to carry out the open space inventory, local agency reimbursement, and other related assignments pursuant to the new Government Code sections 16107 to 16118; each city and county shall report to the Secretary of Resources Agency by October 31, 1972, and annually thereafter, the number of acres of land under its regulatory jurisdiction which may be eligible for state payments; the Secretary of the Resources Agency is the final judge of whether land is in fact devoted to open space use of statewide significance; the activities of the Resources Agency will be carried out in consultation with the Department of Agriculture and the State Office of Planning and Research.

AB 20, First Extraordinary Session, 1971

This enactment was to make changes in AB 1, First Extraordinary Session, 1971 so as to assure "smooth and expeditious implementation of AB 1." The changes made by AB 20 pertinent to open space plans and programs are reflected in the synopsis of AB 1 above. The provisions of AB 20 supersede those of AB 1.

APPENDIX D

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SPEAKER	DEPARTMENT	TOPIC
III Marvin Olson	Transp. Eng.	Discussion Period; Questions and Answers
IV Prof. Harmer Davis	Director, I.T.T.E.	Closing Remarks

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APPENDIX E

UNIVERSITY OF CALIFORNIA, BERKELEYMULTIDISCIPLINARY TASK FORCE PRESENTATION, JUNE 7, 1972

SUBJECT: "Pittsburg and Antioch, East Contra Costa County -- Present
and Future Directions"

A G E N D A

<u>SPEAKER</u>	<u>DEPARTMENT</u>	<u>TOPIC</u>
I (a) Marvin Olson,	Transp. Eng.	Introductory Comments
(b) Prof. Harmer Davis	Director, I.T.T.E.	Introductory Comments
II (a) Michael Adelberg	Psychology/ History	Multidisciplinary Approach; Selection and Definition of the Study Area
(b) Tony Sparks	Bus. Adm.	Regional Governmental Structure
(c) Harry Hasegawa	Civil Eng.	Local Government, Community Services; fire, health, water/sewer, schools - Recommendations
(d) Don King	Arch.	Environmental Considerations - Recommendations
(e) Bob Roche	Transp. Eng.	Economic Considerations - Recommendations
(f) Ann Hansen	Transp. Eng.	Land Use - Recommendations
(g) Charles Hoch	Transp. Eng.	Transportation - Recommendations

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